The main character in this book is kidnapped by a race of aliens who do not believe in free will, and in between coming "unstuck in time" is taken prisoner by German soldiers and kept in the city on the receiving end of one of the most destructive Allied bombing raids of the Second World War. The lesser-known second half of the title of this 1969 novel is "or The Children's Crusade." FTP, name this book about the experiences of Billy Pilgrim, written by Kurt Vonnegut and named after the location where Pilgrim and the other prisoners of war are held.

Answer: SLAUGHTERHOUSE-FIVE

Tossup (Literature) :

In Shakespeare's _The Tempest_, Caliban complains of them "tumbling in my barefoot way, mounting their pricks at my footfall." In "A Midsummer Night's Dream," Titania complains of thorny ones that "be not seen." But perhaps these poor insectivores make their most famous literary appearance when Alice and the Queen of Hearts use them as balls for their croquet match. FTP, identify these not so cuddly critters.

Answer: HEDGEHOGS

Tossup (Literature) :
The English titles of the volumes of this collection include Within a B udding Grove_, _The Captive_, _Cities of the Plain_, _Time Regained_, _The Guermantes Way_, and _Swann's Way_. FTP, name the collective title of this heptology by French novelist Marcel Proust.

Answer: REMEMBRANCE OF THINGS PAST

The Winter of Our Discontent, Burning Bright, Viva Zapata, In Dubious Battle, The Moon is Down, The Pearl, and Cannery Row were all written, FTP what prizewinning author of American fiction?

Answer: John Steinbeck

Tossup (Science) :
Structural information about a molecule can be determined by directing a beam of light at a sample and measuring the light emmitted at a different freqency and at right angles to the incident beam. The scientist who developed this method was born in 1888, knighted in 1929, and awarded the Nobel Prize for Physics in 1930 for his work on the spectroscopic method named after him. FTP, name the Indian physicist.

Answer: Sir Chandrasekhara Venkata RAMAN (accept Raman Spectroscopy on early buzz)

Tossup (Science) :
Computational chemistry uses various forms of many-body simulations to approximate molecular structures and energies. More recently developed methods include density functional theory, semi-empirical, and molecular mechanics. The oldest method, which usually involves the Hartree-Fock approximation, the Roothaans equations, and the Fock matrix, goes by another name in another language. FTP, what is this two-word Latin name translated as "from the beginning?"

Answer: AB INITIO

Tossup (Science) :

In the mid 19th century, Lord Rayleigh showed that for sufficiently small particles, the amount of light scattered is inversely proportional to the fourth power of wavelength. The molecules of oxygen and nitrogen are sufficiently small for this description, and thus, the visible light with
short wavelength is scattered, so that a viewer not looking directly at the sun sees only it, and not the low frequency visible light. This is the answer to, FTP, what age old question to which parents can rarely respond?

## Answer: WHY IS THE SKY BLUE? (Accept variants)

## Tossup (Science) :

This element bound to Uranium permits gas-diffusion enrichment of the latter. Also significant as the only element able to directly react with xenon, it is more cormonly found in compounds implicated in the degradation of the ozone layer. More usefully, in a polymeric form with carbon, it is found in nonstick items everwhere. FTP, name this most electronegative element, the lightest halogen.

Ans: Fluorine

Tossup (History) :
This theory was first propounded in two official state protests about the Alien and Sedition Acts of 1798, but was only truly put into practice more than thirty years later in a South Carolina ordinance aimed at the so-called "Tariff of Abominations." FTP, name this doctrine supported by John Calhoun, which argued that states had the right to prevent enforcement of Federal laws they viewed as unconstitutional.

ANS. Doctrine of NULLIFICATION (accept _"interposition"_)

Tossup (History) :
That of king Charles VII of France was issued in 1438 to assert the supremacy of a council over the pope. That of Ferdinand VII of Spain revoked the Salic law of succession, which had denied royal succession to females. That of Holy Roman Emperor Charles VI was issued in 1713 and declared that his undivided heritage should go to his eldest daughter Maria Theresa. FTP, identify the common name, the latter of which prompted the War of the

## Tossup (History) :

Originally born Lothair of Segni in 1160, this man was elected Pope fully six weeks before being ordained as a priest. Presiding over the Fourth Crusade and the Albigensian Crusade, he died suddenly of chronic malaria in 1216. FTP, identify this head of the Church who took his office to new heights of prestige, and is universally regarded as the strongest medieval Pope.

Answer: INNOCENT III

Tossup (History) :
Magellan has been rememebered by many for being the first to circumnavigate the globe, but he did not finish the trip. Who was the man who took over for him, leading the surviving members the rest of the way?

Answer: Sebastian DEL CANO

Tossup (Religion) :
To the Puritans, this Archbishop of Canterbury was dangerously close to Catholic. He raised the church altars, staunchly defended the ecclesiastical hierarchy, and refused to remove the allegedly idolatrous decorations from Anglican Churches. Who was this conservative Anglican church leader who served under King Charles I until he was executed by the forces of Oliver Cromwell?

Answer: William Laud
"One must still have chaos in oneself to give birth to a dancing star" "The stupidity of the good is unfathomable"
"There is an old illusion which is called good and evil"
"Man is something that shall be overcome. What have you done to overcome him?"
"I am the teacher of the eternal recurrance"
FTP, thus spoke whom?
Answer: ZARATHUSTRA
(Prompt on Nietzsche, accept Thus Spoke Zarathustra, Accept Also Sprach Zarathustra)

Tossup (Religion) :
This religious sect is descended from the International Bible Students Association, founded by Charles Taze Russel in 1872; it took its more familiar present name in 1931. Twelve years later the Supreme Court ruled in West Virginia State Board of Education v. Barnette that children of members of this faith could not be forced to salute the flag as a condition of public-school attendence. FTP, name this Christian sect whose adherents refrain from celebrating Christmas and Easter, believe that the cross is an inappropriate symbol, and meet in buildings called Kingdom Halls.

Ans: JEHOVAH'S WITNESSes

Tossup (Fine Arts) :
This composer collaborated on The Seasons and Inlets with Merce Cunningham, and once wrote a piece that involved 7 harpsichord soloists and 51 tape machines. His Imaginary Landscape \#4 involves even less of what are traditionally considered musical instruments: it is written for 12 randomly tuned radios. He also wrote a book appropriately entitled _Silence_. FTP, whose most famous work consists of 4 minutes and 33 seconds of exactly that?

Answer: John Milton CAGE, Jr.

## Tossup (Fine Arts) :

He was not German, but in 1834, he studied composition in Berlin with Siegfried Dehn. He was not Polish, but he is the composer of "Festival Polonaise>". Nor was he Spanish, yet he is the composer of "Summer Night in Madrid." FTP, identify this Russian composer whose work is considered to be the foundation of practically all later Russian music.

Answer: Michail Ivanovich GLINKA

Tossup (Fine Art) :

This Italian revolutionized painting with his technique of tenebrism, in which he would selectively illuminate figures against a shadowed background. FTP, identify this Baroque artist who painted The Calling of St. Matthew, an intense biblical scene that was used as a propaganda movement for the Counterreformation?

Answer: Caravaggio

Tossup (Sports) :
According to several agents, this man was recently certified as an agent by the NFL Player's Association. On February 27, 1998, he met with Johnny Cochran at the Soul Train Music Awards where they discussed the possibility of jointly representing 1997 Heisman Trophy winner Charles Woodson. For ten points, identify this rap artist turned agent, winner of two Grammys for his album "No Way Out" and for best rap performance by a duo or group for "I'll Be Missing You."

Answer: Sean "PUFF DADDY" Combs or Sean COMBS

Tossup (General Knowledge) :
Toni Morrison, Steven Spielberg, James Watson, Bill Gates, Mary Tyler Moore,

Mikhail Gorbachev, Bill Clinton, and Jack Kevorkian were among the many guests at the 75th anniversary party for, FTP, what national newsweekly?

Answer: TIME Magazine (Accept equivalents on early buzz)

Tossup (Current events)
In 1988's Morrison v. Olson, the Supreme Court upheld the constitutionality of the law authorizing it. Justice Scalia dissented, noting that the relevant provision of the 1978 Ethics in Government Act creates the problem that in the event of misconduct, "there would be no one accountable to the public to whom blame could be assigned." FTP, name this position, whose current occupant has pursued among others James and Susan McDougal and former Arkansas governor Jim Guy Tucker, as well as President Clinton.

Ans: INDEPENDENT COUNSEL (do not accept "special prosecutor")

Tossup (Current Events) :
He died on the ninth of March in solitary confinement in prison while serving his prison sentence. Though he was only 57, a heart condition had dogged him for years. Who was this man, who gained infamy as one of Bill Clinton's closest friends and business associates until he reportedly began cooperating with Ken Starr recently on the Whitewater investigation?

Answer: Jim MCDOUGAL

Tossup (Geography) :
The old quarter of this city is the Schnurrvietel (Shnorefertel). An original member of the Hanseatic League, this city also comprises a complete federal state. Home of the 1992 Cup Winners Cup in Soccer, it also boasts the Becks Brewery. FTP, name this German city on the Weser (Vaser) river, home to a musical donkey, dog, cat, and rooster.

Answer: Bremen (Note: the animals = Brementown musicians)

This body of water got its name from the abundance of anthozoans that thrive there. To the east lie Vanuatu and New Caledonia. To the north is the southern tip of New Guinea. The Great Barrier Reef forms the entire western border. For ten points, identify this body of water, the site of the first naval battle in which the opposing fleets never came within sight of each other.

Answer: CORAL Sea

Tossup (Social Science) :
For many years, the 1754 classic "The History of England" was, despite many errors, the standard work on the subject. But all was not lost, however, because the author was one of the leaders of the radical skepticism movement, and might have told you not to believe his words anyway. FTP, identify this philosopher and repudiator of certain knowledge, the author of "A Treatise of Human Nature."

Answer: David HUME

Tossup (Social Science) :
This two-word term was originally used in th 1980 presidential primary race. Referring originally to one of the canditates' income tax proposals,it has taken on a broader meaning, referring now to any such tax restructuring based on supply-side economic theory. FTP, what Hatian-inspired charge did the future 41st president level against the eventual winner of the 1980 presidential election?

Answer: VOODOO ECONOMICS

Bonus (Literature) :
Identify the play from characters for fifteen points. Five if you need the playwright.

1. Characters: Meg, Doc, Lenny, and Babe Playwright: Beth Henley

Answer: Crimes of the Heart
2. Characters: Torvald Helmer, Dr. Rank, Kristine Playwright: Henrik Ibsen

Answer: A Doll's House

Bonus (Literature):
Identify the poem from lines on a 30-20-10 basis.
30: When cups run swiftly round, With no allaying Thames, Our careless heads with roses bound, Our hearts with loyal flames;

20: If I have freedom in my love, And in my soul am free, Angels alone, that soar above, Enjoy such liberty.

10: Stone walls do not a prison make Nor iron bars a cage; Minds innocent and quiet take That for a hermitage.

Answer: TO ALTHEA, FROM PRISON

30-20-10. Name the 20th-century author from works.
30: Azazel, The Gods Themselves
20: The Caves of Steel, Nightfall
10: The Foundation series, I, Robot
Ans: Isaac ASIMOV

Bonus (Literature) :
Identify the books. 15 points for the first line, 10 points if you need the last line, and 5 points if you need the author too.

1 15: Stately, plump Buck Mulligan came from the stairhead bearing a bowl of lather on which a mirror and razor lay crossed.

10: And his heart was going like mad and yes I said yes I will yes. 5: James Joyce

Answer: _ULYSSES_
2) 15: The drought had lasted now for ten million years, and the reign of the terrible lizards had long since ended.

10: For though he was master of the world, he was not quite sure what to do next. But he would think of something.

5: Arthur C. Clarke
Answer: _2001_ (A Space Odyssey_)

Bonus (Science) :

1) (15 points) According to the theory of special relativity, a meterstick flying past you at three-fifths the speed of light would appear to be how long?

Ans: 80 cm or $4 / 5$ of a meter
2) (15 points) Special relativity predicts that nothing can travel faster
than the speed of light in a vacuum, but in non-vacuum media it is possible for a particle to travel faster than the speed of light in that medium, producing an effect analogous to the sonic boom. For fifteen points, name this effect.

Ans: CERENKOV radiation (or effect)

Bonus (Science) :

In the equations for the Schrodinger model of the atom, identify the variable or constant used to designate the given quantity, ten points each.

1) Nuclear charge Ans: Z
2) Planck's Constant Ans: $h$
3) Angular momentum

Ans: 1 (that's an el, not an eye)

Bonus (Science): -- Moderator: pass out computer program

Look at the computer program on the handout. (wait 5 seconds) Now answer the following questions.

1) For 5 points, in what language is the code written?

Answer: C
2) Note that the function SOLVE contains a reference to itself. FTP, what term describes such an algorithm?

Answer: RECURSIVE or RECURSION
3) For fifteen points, this code yields the solution to what classic problem of recursion? (give the team 10 seconds)

Answer: TOWER OF HANOI

Bonus (Science) :

Sure, we've heard all the easy organic chemistry functional group nomenclature questions. This is not one of those. None of the answers are Alcohol, Ester, Ether, or any of those. Ten points each.

1) An S-H group, like an alcohol, but with a sulfer Ans: Thiol or Mercapto-
2) An N-H C-O group, as in an amino acid bond Ans: Amide (do NOT accept peptide -- it's not a group)
3) Any compound containing C double bond C double bond C Ans: Allene

Bonus (History) :

Time for some easy historical dating. I'll name a historical event, and you name the year in which it occurred. Five points each, plus a bonus five for all five.

1) Castro assumes power in Cuba Ans: 1959
2) Soviet suppression of the Hungarian Revolution

Ans: 1956
3) The Cuban Missile Crisis

Ans: 1962
4) Nuclear Test Ban Treaty Ans: 1963
5) Korean Conflict ended

Ans: 1953

Bonus (History) :
Identify the leader on a 30-20-10 basis

30: He was twice defeated in 1306, at Methven, near Perth, and at Dalry, Perthshire, and for over a year was a fugitive.

20: He is thought to have died from leprosy, and his heart was to be taken on a pilgrimage to the holy land, but the party carrying it was ambushed on the way.

10: According to legend, he derived hope and confidence from a spider patiently weaving his web, and went on to free Scotland from English rule.

Answer: Robert BRUCE accept: Robert the BRUCE

Bonus (History) :
30-20-10. Name the historically important economist from works. 30: Economics and the Public Purpose
20: The New Industrial State
10: The Affluent Society
Ans: John Kenneth GALBRAITH

Bonus (History) :
FTPE, identify these World War II massacres.

1) The Japanese occupation forces in this Nationalist Chinese capital killed between 100,000 and 300,000 civilians and already-surrendered soldiers.

Ans: NANKING
2) This Czech village was "liquidated" on June 9th-10th, 1942, in reponse to the assassination of deputy SS leader Reinhard Heydrich by the Czech underground: its male adult inhabitants were executed, female adults were sent to concentration camps, children were dispersed among German families and the village was leveled with dynamite.

## Ans: LIDICE

3) Here more than four thousand interned Polish officers were shot by the Soviet secret police.

Ans: KATYN Forest massacre

Bonus (Religion) :

Name the Jewish holiday from a brief description, for the stated number of points:

1) For five: The Day of Atonement for sins, the holiest day of the Jewish calender.

Ans: YOM KPPUR
2) For ten: The Feast of Tabernacles, tabernacles being one name for the booth-like structures in which those observing the holiday eat. A lulav (LOO-lahv) and etrog are among the primary symbols associated with this holiday.

Ans: SUKKOT (accept pronunciations ending in "s" or "th" too)
3) For fifteen: It marks the day on which the Ten Commandments are supposed to have been handed down.

Ans: SHAVUOT (Again, accept a pronunciation ending in "s".)

Bonus (Religion):

During the Diaspora, the Jewish community split into two predominant groups, the first consisting of Jews from Spain, Africa, and the Middle East, and the second from predominantly Northern and Eastern Europe. SPELU the names of these two groups, fifteen points each.

| Ans: | S E P H ARDI | ASHKENAZ I |
| :--- | :--- | :--- |
|  | SEPHARDIM | ASHKENAZ I C |
|  | SE P H ARD I C | ASHKENA Z I M |

Bonus (Philosophy):

Identify the philosophy based on his answer to "How much wood would a
woodchuck chuck if a woodchuck could chuck wood?" Ten Points each.

1) Only insofar as the a priori synthetic conception of causality in the chucking action permits us to analyze the woodchuck's behavior can we corment on the nature of the chucked wood-in-itself.

Answer: Immanual KANT
2) What do we mean when we say "Woodchuck?" Does my answer to the question reveal something about metaphysics or the grammar of the woodchuck-predicate?

Answer: Ludwig WITTGENSTEIN
3) It is the entelechy (en-tuh-lekki) of the wood to be chucked by the woodchuck. The woodchuck must, however, strike for a harmonious mean between chucking and other activities.

Answer: ARISTOTLE

Bonus (Fine Art):
Given the work, name the painter, ten points each

1) Broadway Boogie-Woogie Ans: Piet MONDRIAN
2) The Slave Ship

Ans: Joseph Mallard William TURNER
3) The Rake's Progress

Ans: William HOGARTH

Bonus (Fine Arts) -- Moderator: Pass out sketch.

1) For ten points, who is the subject of this sketch?

Answer: Igor STRAVINSKY
2) For ten points, who sketched him?

Answer: Pablo PICASSO
3) For a final ten points, with what Paris based company were both Stravinsky and Picasso associated when Picasso made this sketch?

Answer: BAL工ETS RUSSES

Bonus (Fine Arts) :
30-20-10, name the artist from works.

30: "Christ Cleansing the Temple," "Martyrdom of St. Maurice"
20: "St. Ildefonso," "Adoration of the Shepherds"
10: "Burial of the Conde de Orgaz," "View of Toledo"

ANS. EL GRECO or Domenikos THEOTOKOPOULOS

Bonus (Sports) :

Given a list of players from a team that played in the 1998 NCAA Men's Basketball Tournament, identify the team, FTPE.

1) Elton Brand, Roshown McLeod, Trajan Langdon Answer: Duke
2) Ron Artest, Zendon Hamilton, Felipe Lopez Answer: St. John's
3) Ruben Patterson, Melvenn Levett, D'Juan Baker Answer: Cincinnati

Bonus (General Knowledge) :

We've all seen the recent feature stories on the handheld organizers out there, but how close attention did you pay to the product names. FTPE, identify:

1) Apple Computer's aptly named handheld Personal Digital Assistant, recently discontinued.

Answer: NEWTON MessagePad 2100 (Also accept MESSAGEPAD)
2) US Robotics (now 3-COM) took the market by storm a year and a half ago with this gadget.

Answer: Palm PILOT
3) Microsoft produces a drastically stripped-down version of its Windows operating system to run on some handheld machines. What two-letter designation is this version given?

Answer: (Windows) CE

Bonus (Current Events) :
U.S. economic sanctions against Serbia were recently reimposed in response to the Serbian government's extremely "excessive use of force" against civilians as well as armed guerillas in attempting to combat separatism in this formerly autonomous region.

1) First, FTP, name the region.

Ans: KOSOVO
2) FTP, name the country which has threatened to "act as one nation" and intervene if a full-scale war breaks out in Kosovo between Serbs and the separatist, mostly Muslim minority.

Ans: ALBANIA
3) FTP, name the current President of the so-called "Federal Republic of Yugoslavia" (consisting of Serbia and Montenegro), who ordered the crackdown in Kosovo.

Ans: Slobodan MILOSEVIC

Bonus (Current Events) :

1. Name these figures recently implicated in the Monica Lewinsky scandal,
ten points each.
1) She taperecorded the conversations in which Lewinsky spoke of an affair with Clinton.

Ans: Linda TRIPP
2) This WDC lawyer helped find Lewinsky a job at Revlon.

Ans: Vernon JORDAN
3) This UN Representative met with Lewinsky to help her find a job. Ans: Bill RICHARDSON

Bonus (Geography) :

Dr. Hastings Kumuzu Banda led his country to independence and was appointed president for life in 1974.

1) FTP, Dr. Banda was president of what nation?

Answer: MALAWI
2) F5P, what lake borders Malawi on the northeast?

Answer: Lake NYASA
3) For five points each, what 3 nations border Malawi?

Answer: TANZANIA, ZAMBIA, MOZAMBIQUE

Bonus (Geography) :

Arrange the following cities from nearest to farthest from the tournament site, in terms of driving distance. Five points each, plus a bonus five for all correct:

Montgomery, AL Detroit, MI Oklahoma City, OK
Des Moines, IA Minneapolis / St. Paul, MN
Answer: Detroit, Montgomery, Des Moines, Minneapolis, OKC

Bonus (Social Science) :
Expand the following English acronyms related to European Integration, for the stated number of points. A clue is given for each.

5 pts: EMU, to take effect in 1999
Answer: European Monetary Union
10 pts: EFTA, pertaining to commerce with certain non-EU nations
Answer: Eurpoean Free Trade Association
15 pts: OSCE, pertaining to collective security Answer: Organization of Security and Cooperation in Europe

Bonus (Social Science) :
Answer the following economics questions.
5) What type of function introduced by Jeremy Bentham assigns, for each consumer, a value to any particular bundle of goods?

Answer: UTILITY function
10) What term refers to a curve representing bundles of goods from which a consumer derives equal utility?

Answer: INDIFFERENCE Curve
15) For a 2 dimensional curve, what term describes the negative of the slope of the indifference curve?
Answer: MARGINAL RATE of SUBSTITUTION

```
#include <stdio.h>
#include <stdlib.h>
void solve(int size, int from, int to) {
    int free_peg;
    if (size = 0)
        return;
    else {
            free_peg = 3- (from + to);
            solve(size-1, from, free_peg);
            printf("%d -> %od\n", from, to);
            solve(size-1, free_peg, to);
    }
}
void main(void) {
    solve(10, 0, 2);
}
```

