

Questions on the Crum VII, 1998
Toss-ups by Princeton A and Princeton A-

1. This religious sect is descended from the International Bible Students Association. Founded 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 attendance. FTP, name this Christian sect, founded by Charles Taze Russell whose adherents refrain from celebrating Christmas and Easter, believe that the cross is an inappropriate symbol, and meet in buildings called Kingdom Halls.

Answer: _JEHOVAH'S WITNESS_es

2. The literary history of Erinaceinae is rich: 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 Old World insectivores.

Answer: _HEDGEHOGS_

3. 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)

4. The Solomon Islands and the southern tip of New Guinea lie to the north, Vanuatu and New Caledonia are found to its east, and the Tasman Sea is to the south. It was the site of the first naval battle in which the opposing fleets never came within sight of each other, soon after a Japanese invasion force passed over the Great Barrier Reef on its way to Port Moresby in May, 1944. FTP, identify this sea, named for the abundance of anthozoans found under its surface.

Answer: CORAL Sea

5. That of 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, give the common names of these decrees, the last of which prompted the War of the Austrian Succession.

Answer: PRAGMATIC SANCTION

6. "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 recurrence" FTP, identify the source of these quotations, according to Friedrich Nietzsche?

Answer: ZARATHUSTRA (Prompt on Nietzsche, accept Thus Spake Zarathustra or Also Sprach Zarathustra)

7. 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.

8. Born Lotario di Segni in 1160, this man was elected Pope fully six weeks before being ordained as a priest, reigning until he died of chronic malaria in 1216. FTP, identify this head of the Church who took his office to new heights of prestige, presided over the Fourth Crusade and the Albigensian Crusade, and is often regarded as the strongest medieval Pope.

Answer: _INNOCENT III_ (prompt on Innocent)

9. After World War II, it was assigned to the American zone, even though most of the areas under U.S. occupation were located in the south of the country. An original member of the Hanseatic League, today this city is a federal state unto itself and Germany's second-largest port, as well as the site of the Becks Brewery. FTP, name this German city on the Weser (Vaser) river, northwest of Hanover and southwest of Hamburg, home to a musical donkey, dog, cat, and rooster.

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

10. 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 early Russian nationalist composer known for the operas "A Life for the Czar" and "Russlan and Ludmilla".

Answer: Mikhail Ivanovich GLINKA

11. When bound to uranium, this element permits gas-diffusion enrichment. It is more commonly found in compounds implicated in the degradation of the ozone layer. More usefully, in a polymeric form with carbon, it is found in non-stick items everywhere. FTP, name this element, the only one able to react directly with xenon, the most electronegative element.

Answer: Fluorine (DNA Fluoride)

12. To the Puritans, this Anglican 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. FTP, identify this conservative Anglican church leader who served under King Charles I until he was executed by the forces of Oliver Cromwell.

Answer: William LAUD

13. In the 1988 case *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 best-known current occupant has pursued James and Susan McDougal, former Arkansas governor Jim Guy Tucker, and President Clinton.

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

14. After being recently certified as an agent by the NFL Player's Association, this man met on February 27, 1998 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

15. His paintings of the virgin Mary created scandal; one of his portraits of the dead Virgin Mary was supposedly based on a drowned prostitute fished out of the Tiber. Working directly from models, this Italian revolutionized painting with his technique of tenebrism, in which he would selectively illuminate figures against a shadowed background. FTP, identify this anti-Mannerist artist who provided a propaganda picture for the Counterreformation with his *The Calling of St. Matthew*.

Answer: Michelangelo Merisi da CARAVAGGIO

16. The English titles of the volumes of this collection include *Within a Budding Grove*, *The Captive*, *Cities of the Plain*, *Time Regained*, *The Guermites Way*, and *Swann's Way*. FTP, name the collective title of this heptology by French novelist Marcel Proust.

Answer: REMEMBRANCE OF THINGS PAST (accept "In search of lost time" or "A la recherche du temps perdu", but glare at anyone who gives you the French)

17. Structural information about a molecule can be determined by directing a beam of light at a sample and measuring the light emitted at a different frequency 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)

18. Not much is known of his life, but he received his earliest training in the Chapel Royal as a chorister. He became the keeper of the King's instruments in 1683, and also tuned the organ at Westminster Abbey. He spent most of his life there as organist while writing his music. FTP, name this English composer of *Midsummer Night's Dream*, *The Fairy Queen*, and *Dido and Aeneas*.

ANS. Henry Purcell

19. "No, I am not a spook like those who haunted Edgar Allan Poe, nor am I one of your Hollywood movie ectoplasms. I am a man of substance, of flesh and bone, fiber and

liquids -- and I might even be said to possess a mind." This quote describes the title character of, FTP, what novel by Ralph Ellison?

ANS. _INVISIBLE MAN_ (accept Jack the Bear on early buzz)

20. She was the daughter of Zeus and Hera, and is associated with the Roman deity Juventas. She was the immortal wife of Heracles, but is better known for her other role, where she was also known as Dia and Ganymeda. FTP, name this goddess of youth, who also served as cupbearer to the gods.

ANS. _Hebe_ (DNA Hestia)

21. It was proved to be undecidable by Kurt G^odel and Paul Cohen, assuming standard Zermelo-Fraenkel set theory and the Axiom of Choice. FTP, name this mathematical conjecture which was originally proposed by Georg Cantor and states that there is no infinite set which has cardinal number between that of the set of integers and the set of reals, or in other words, Aleph-one equals C.

ANS. the _Continuum Hypothesis_

Questions on the Crum VII, 1998

Boni by Princeton A (Ben Horwich, Peter Coles, David Isaacson and Ross Fisher)

1. Identify the leader on a 30-20-10 basis

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

20: He is thought to have died from leprosy. 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, defeating the English at the battle of Bannockburn.

Answer: Robert [the] BRUCE

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

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

Answer: C

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

Answer: RECURSIVE or RECURSION

c) For fifteen points, this code yields the solution to what classic problem of recursion? (give the team 10 seconds)

Answer: TOWER OF HANOI

3. Given the work, name the painter, for 5-10-15

5) The series of engravings The Rake's Progress

Answer: William HOGARTH

10) Broadway Boogie-Woogie

Answer: Piet MONDRIAN

15) The Slave Ship

Answer: Joseph Mallard William TURNER

4. Identify the following economics terms for the stated number of points:

5) This type of function introduced by Jeremy Bentham assigns, for each consumer, a value to any particular bundle of goods.

Answer: UTILITY function

10) This 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 (prompt on partial answer)

5. Identify the poem from quotes 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

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

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

Answer: YOM KIPPUR

b) 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.

Answer: SUKKOT (accept pronunciations ending in "s" or "th" too)

c) For fifteen: The Feast of Weeks, it traditionally marks the day on which the Ten Commandments are supposed to have been handed down.

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

7. FTPE, answer the following questions about World War II massacres.

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

Answer: NANKING

b) More than four thousand interned Polish officers were shot here by the Soviet secret police.

Answer: KATYN Forest

c) The Czech village of Lidice was "liquidated" on June 9th-10th, 1942, 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, all in response to this man's assassination by the Czech underground.

Answer: Reinhard HEYDRICH

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

a) Nuclear charge

Answer: Z

b) Planck's Constant

Answer: h

c) Angular momentum

Answer: l (that's an el, not an eye)

9. Identify the play from characters for fifteen points. Five if you need the playwright.

a) Characters: Meg, Doc, Lenny, and Babe
Playwright: Beth Henley

Answer: Crimes of the Heart

b) Characters: Meg, Stanley, Goldberg, Lulu
Playwright: Harold Pinter

Answer: The Birthday Party

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

a) Elton Brand, Roshown McLeod, Trajan Langdon

Answer: Duke

b) Ron Artest, Zondon Hamilton, Felipe Lopez

Answer: St. John's

c) Ruben Patterson, Melvonn Levett, D'Juan Baker

Answer: Cincinnati

11. For ten points each, identify the philosopher, based on his answer to the age-old question, "How much wood would a woodchuck chuck if a woodchuck could chuck wood?"

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

Answer: Immanuel KANT

b) 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

c) 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

12. FTPE, answer the following questions about this sketch. (Moderator: Pass out sketch.)

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

Answer: Igor STRAVINSKY

b) For ten points, who sketched him?

Answer: Pablo PICASSO

c) For a final ten points, with what company were both Stravinsky and Picasso associated when Picasso made this sketch?

Answer: BALLET RUSSES

13. For 5-10-15, answer these questions about the adult versions of Tamagotchi, personal digital assistants.

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

Answer: NEWTON MessagePad 2100 (Also accept MESSAGEPAD)

10) US Robotics (now 3-COM) took the market by storm a year and a half ago with this gadget.

Answer: Palm PILOT

15) 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

14. Expand the following English acronyms related to European Integration, for the stated number of points.

5 pts: EFTA, pertaining to commerce with certain non-EU nations

Answer: European Free Trade Association

10 pts: EMU, to take effect in 1999

Answer: European Monetary Union

15 pts: OSCE, pertaining to collective security

Answer: Organization of Security and Cooperation in Europe

15. 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.

a) 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_

b) 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_)

16. Consider social scientists for this boni, who may or may not have something in common. Fifteen points apiece.

A) As a psychoanalyst, this man lectured at both Bennington College and New York University and published prolifically. His most famous titles include The Art of Loving, Beyond the Chains of Illusion, The Sane Society, and 1941's Escape from Freedom.

ANS. Erich Fromm

B) As a journalist and social critic, he detailed the status-striving ways of Americans in 1959's The Status Seekers. Also the author of The Naked Society, he prescribed the "ingredients for a happy marriage" and looked into issues as only a journalist could.

ANS. Vance Packard

17) Are you a science type? If not, might as well relax, sniff some ether and slug down some alcohol, 'cause these aren't your usual functional groups. FTP each, identify:

a) An S-H group, like an alcohol, but with a sulfur

Answer: Thiol or Mercapto-

b) An N-H C-O group, as in an amino acid bond

Answer: Amide (do NOT accept peptide -- it's not a group)

c) Any compound containing C double bond C double bond C

Answer: Allene

18. 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 Count Orgaz," "View of Toledo"

Answer: EL GRECO or Domenikos THEOTOKOPOULOS

19. Time for some easy historical dating. I'll name a historical event, and you name the year in which it occurred for ten points each; you'll receive only five points if you need another event.

For 10: The Dalai Lama escapes to India

For 5: Castro assumes power in Cuba

Answer: 1959

For 10: The first aerial H-Bomb is tested over Bikini Atoll

For 5: The Soviets repress the revolt of the Hungarians

Answer: 1956

For 10: Vietnamese leader Ngo Dinh Diem is assassinated
For 5: John F. Kennedy is assassinated.

Answer: 1963

20. 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 NYASSA

3) For five points each, what 3 nations border Malawi?

Answer: TANZANIA, ZAMBIA, MOZAMBIQUE

21) Running back Ricky Watters signed with the Seattle Seahawks on March 4 to a four-year contract. For ten points apiece, answer these questions about Watters's past.

A) For what team did Watters star last season, when he rushed for 1110 yards and seven touchdowns?

ANS. The Philadelphia _Eagles_

B) Which team drafted Watters, which defeated the San Diego Chargers, 49-26, in Super Bowl XXIX in 1995?

ANS. The San Francisco _Forty-Niners_

C) Which college did Watters play for when it won the national championship in 1998? This "fighting" school features a Golden Dome that overlooks South Bend, Indiana, campus?

ANS. The University of _Notre Dame_

(Handout for Computer Science Bonus)

```
#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 -> %d\n", from, to);
        solve(size-1, free_peg, to);
    }
}

void main(void) {
    solve(10, 0, 2);
}
```