1. The Somerset is described as "A phantom ship, with each mast and spar/ Across the moon like a prison bar." The title character arrives at Medford town at "twelve by the village clock," on the night of April 18, 1775. The agreed upon signal is "One, if by land, and two, if by sea." FTP name this Longfellow poem about an American patriot rousing the Minutemen.

## Ans: Paul Revere's Ride

2. It depicts a popular local legend concerning Don Gonzalo Ruz, an early 14th century benefactor. Residing in the church of Santo Tomè, the elongated, violently foreshortened figures of the celestial assembly show the artist's Mannerist style. The title character's soul, shown as a baby, is conducted upwards by an angel, while St. Stephen and St. Augustine lower his body into a coffin. Depicting the interrment of a pious nobleman, FTP, name this El Greco painting.

Ans: The Burial of (the) Count (of) Orgaz (words in parentheses optional)
3. It is assumed to be a linear function of pressure in Murnaghan's equation and the polytropic equations of state, and is equal to the local density times the seismic parameter. It is also equal to the first Lamè constant plus two-thirds times the second Lamè constant. Defined as minus the volume times the derivative of the pressure with respect to volume, FTP name this elastic modulus, a measure of stiffness against compression.

Answer: bulk modulus
4. The giant Hraesvelg, Cian the father of Lugh, Sun Wu-Kung, and the demon king Ravana are all examples. Math ap Mathonwy and Circe were both able to force it upon other people. Svadilfari and Brokk were distracted from their work by Loki using this power, and Nereus used it to try to avoid capture. FTP, name this ability to assume different forms.

Ans: shape changers or shape shifters (accept equivalents)
5. In his museum, which has a smoking required sign, you can learn how a a trip to the races on his 21st birthday made him a millionaire overnight. Punched by George after pursuing Lorraine, his poorly turned phrases include "That's about as funny as a screen door on a battleship" and "Why don't you make like a tree and get out of here." FTP name this magnet for manure, the nemesis of Marty McFly in Back to the Future.

Ans: Biff Tannen (accept either name)
6. The main character has changed his name to Monsieur Delafield, confusing Horace, who thinks he can trust the main character. Chrysalde advises the main character not to obsess about cuckoldry. Horace loves the main character's sheltered ward, who is given a book of "Marriage Maxims" after the main character declares he will marry her. FTP, name this Molière play focusing on Arnolphe's attempts to mold Agnes into a perfect bride.

Ans: The School for Wives or L'Ecole des femmes
7. Geodesics play this role for the energy functional on curves between two fixed points. Morse theory usually requires that they be nondegenerate, i.e. the Hessian matrix at these points is nonsingular. For one variable functions, this nonsingularity reduces to the "second derivative" test for extrema of functions at this sort of point if the second derivative is nonzero. For 10 points, what name is given to a point where a function's derivative is zero?

Ans: critical point(s)
18. After intense study of the curriculum established by Chrysippus and Zeno of Citium, he devoted himself to teaching. The Encheiridion and the Discourses are collections of notes on his lectures compiled by his pupil Arrianus. Despite being born a slave and having a permanent physical disability, he held that all people are perfectly free to control their lives. FTP name this Roman Stoic.

## Ans: Epictetus

19. Growing up in Kansas City, his idol was Lester Young. He played in bands led by Jay McShann, Billy Eckstine, and Earl Hines. His mastery of chordal improvisation can be heard in "Cherokee." He penned "Now's the Time," "Ko Ko," and "Ornithology," and famously collaborated with Dizzy Gillespie. Considered a founder of bebop, FTP name this alto soxophonist nicknamed "Yardbird."

Ans: Charlie Christopher "Yardbird" or "Bird" Parker, Jr. (accept either nickname before the end, need Parker at the end)
20. The son of Seti I, he built or completed temples at Luxor, Karnak, and Abu Simbel, and was succeeded by Merneptah in 1225 BC. After an important battle on the Orontes, he claimed to have saved his forces single-handedly. Eventually he concluded a treaty of friendship and married a Hittite princess. Reigning for 67 years, FTP name this pharaoh who was probably the pharaoh of the exile mentioned in the Old Testament.

Ans: Ramses II (accept Rameses or Ramesses II)
21. In Ulrich's account, he was the son of King Pant and Clarine, and was raised in Maidenland. He rescued the daughter of King Pelles the Grail Guardian from a tub of boiling water, and she later seduced him in disguise. After conquering the castle Dolorous Gard, he made it his home and renamed it Joyous Gard. Raised by the enchantress Vivien, he accidentally killed Gareth. The father of Sir Galahad, FTP name this greatest of Arthur's knights.

Ans: Sir Lancelot of the Lake or Launcelot du Lac
22. He tells the tale of a man who dies for lack of coal in his story "The Bucket Rider." His other tales include the story of a man who fasts because he can't find the food he likes, and an officer appointed judge and prosecutor who states "Guilt is never to be doubted." Those stories are "A Hunger Artist" and "In the Penal Colony." His best-known story focuses on Gregor Samsa. FTP, name this author of "The Metamorphosis."

Ans: Franz Kafka

## Technophobia VII - 23 November 2002

Questions by Caleb and Seth

1. For the stated number of points, answer the following concerning the Ghana Empire. The Ghana Empire lay in the southeastern part of present-day Mauritania and the western part of this present-day nation with its capital city at Bamako.
Answer: Mali
Until around A.D. 700, the native Soninke people were ruled by these desert-dwellers from North Africa.
Answer: Berbers
This city was the empire's capital.
Answer: Kumbi Saleh
2. For ten points each, name the following terms associated with computer networks.

This is a measure of the capacity of a link or connection, usually given in units of bits per second.
Answer: bandwidth (can also accept throughput)
This is a network node that forwards packets from inputs to outputs based on header information in each packet. Typically, it does not interconnect networks of different types.
Answer: switch (do not accept router)
This is a TCP/IP-based authentication system that was developed at MIT. It involves two hosts using a trusted third party to authenticate each other.
Answer: Kerberos
3. For the stated number of points, name the following Supreme Court decisions. In this 1954 decision, the Court ruled that separate public schools for black and students were inherently unequal.
Answer: Brown v. Board of Education of Topeka
In this 1962 decision, the Court ruled that federal courts could resolve constitutional challenges to an unequal distribution of voters among legislative districts.
Answer: Baker v. Carr
In this 1990 decision, the Court ruled that a person had the right to refuse life-sustaining medical treatment.
Answer: Cruzan v. Missouri
4. Name these Ibsen plays from clues about people who die, FTPE.
10) The title character convinces Eilert Lövborg to "die beautifully," then commits suicide when Judge Brack tries to blackmail her into becoming his mistress.

Ans: Hedda Gabbler
10) Gregers Werle convinces Hjalmar Ekdal that Hedvig is not his daughter. Hedvig shoots herself, rather than the title creature.

Ans: Wild Duck
10) Hilde Wangel convinces Halvard Solness to climb to the top of his new house. He falls and dies.

Ans: Master Builder
5. For the stated number of points, answer the following questions concerning African geography.
This is Africa's largest lake, and it is bordered by several nations including Tanzania, Kenya, and Uganda.
Answer: Lake Victoria
This desert in the southwestern part of Africa is the world's oldest desert.
Answer: Namib Desert
Lake Asal, which is Africa's lowest point, lies in this nation.
Answer: Republic of Djibouti
6. For the stated number of points, name the following popes.

This pope excommunicated Martin Luther in 1521.

## Answer: Leo X or Leo the Tenth

This pope excommunicated Henry VIII in 1533.
Answer: Clement VII or Clement the Seventh
This pope had the unfortunate distinction of being in office during World War 2 and the Holocaust.
Answer: Pius XII or Pius the Twelfth
7. For ten points each, answer the following concerning a recent event in the music industry.
This 37-year-old rapper, a founding member of the group Run-DMC, was shot and killed in a New York recording studio.
Answer: Jason Mizell or Jam Master Jay
Run-DMC's album, Raising Hell, included a remake of this rock hit from the band Aerosmith.
Answer: Walk This Way
Run-DMC was known for their black outfits, hats, and this company's sneakers.
Answer: Adidas
8. For ten points each, name the following golfers associated with the 1997 Masters tournament.
This 21-year-old "Cablinasian" won the tournament by 12 strokes.
Answer: Tiger Woods
This 1992 U.S. Open champion finished second to Woods; he also finished second to Jack Nicklaus at the 1986 Masters.
Answer: Tom Kite
This 1979 Masters champion caused quite a stir with his comment about Woods serving "fried chicken and collard greens" at the Masters' champions dinner.

Answer: Fuzzy Zoeller
9. For the stated number of points, given an entertainer's name, give their original name. Marilyn Monroe

Answer: $\quad$ Norma Jean Mortensen or Norma Jean Baker
Notorious B.I.G.
Answer: Christopher Wallace
Irving Berlin
Answer: Israel Baline
10. For ten points each, answer the following concerning some of the largest corporate mergers and acquisitions in U.S. history.
In 1998, Daimler-Benz AG acquired this company.
Answer: Chrysler Corporation
In 1996, this company acquired Capital Cities/ABC.
Answer: Walt Disney
In 1996, this company acquired MFS Communications.

## Answer: WorldCom

11. Name these 20th century architects FTPE.
10) This Art Nouveau architect's most famous work is the Casa Milá apartment house in Barcelona.

Ans: Antoni Gaudi
10) This Swiss-born architect's works include the church of Notre-Dame-du-Haut at Ronchamp, and machines à habiter, such as the Savoye House.

Ans: Le Corbusier or Charles Edouard Jeanneret
10) His projects include Mile High Center in Denver and the John Hancock Tower in Boston. His plan for the expansion and renovation of the Louvre included a glass pyramid.

Ans: Ieoh Ming Pei
12. Answer the following on the ancient Persian Empire FTPE.
10) The Persians used this Semitic language as the standard language of administration and diplomacy. It had earlier spread throughout the Fertile Crescent as a lingua franca.

Ans: Aramaic or Aramaean or Chaldean or Chaldaean
10) The empire was organized into provinces under these independent governors. Examples include Mausolus of Caria.

Ans: satrap
10) Cyrus the Great established this dynasty of the Persian Empire by defeating Astyages of Media.

Ans: Achaemenid
13. Name these 18 th century monarchs for ten points each.

This king married Marie Antoinette and was beheaded in 1793.
Answer: Louis XVI or Louis the Sixteenth
This mother of Marie Antoinette fought in the Seven Years' War with Frederick II of
Prussia.
Answer: Maria Theresa

This last king of Poland tried to fight off an invasion under General Thaddeus Kosciuszko in 1794.

## Answer: Stanislav II or Stanislav the Second

14. Name these Paul Simon songs from opening lyrics FTPE.
10) Hello darkness, my old friend,/ I've come to talk with you again

Ans: The Sound of Silence
10) When I think back/ On all the crap I learned in high school/ It's a wonder/ I can think at all

Ans: Kodachrome
10) A man walks down the street/ He says why am I soft in the middle now/ Why am I soft in the middle/ The rest of my life is so hard

Ans: You Can Call Me AI
15. Answer the following about carbon fixation in photosynthesis FTPE.
10) Carbon dioxide enters the leaf by way of these microscopic pores, which are flanked by pairs of guard cells.

Ans: stomata
10) Also known as the dark reactions, carbon fixation takes place during this set of reactions, which ultimately produce sugar.

Ans: Calvin cycle
10) The Calvin cycle takes place in this dense fluid within the chloroplast, which is separated from the thylakoid space by membranes.

Ans: stroma
16. There are 7 properties in standard Monopoly, besides the railroads, that do not have avenue in their names. FFPE, name any 6 . You have 10 seconds.

Ans: St. Charles Place, Electric Company, St. James Place, Water Works, Marvin Gardens, Park Place, Boardwalk
17. Name the following about integration of real functions of one real variable for 10 points each.
10) This technique, useful in integration, turns an integral of $f$ prime times $g$ over a region into minus the integral of f times g prime plus fg evaluated at the endpoints.

Ans: integration by parts
10) This nineteenth century mathematician's notion of integral states that a function is integrable if and only if the difference between its right- and left-hand sums converges to zero as partitions of the interval of integration are made finer.

Ans: Bernhard Riemann
10) This theorem gives a necessary and sufficient condition for a bounded function on a closed interval to be Riemann integrable: its set of discontinuities must have measure zero. Its namesake developed the most famous generalization of the Riemann integral.

Ans: Lebesgue's Theorem
18. Answer the following relating to people Orestes kills, FTSNOP.
5) Orestes kills this woman, his mother, because she murdered her husband Agamemnon.

Ans: Clytemnestra
10) Orestes also kills this cousin of Agamemnon, Clytemnestra's lover and co-conspirator.

Ans: Aegisthus
5) In a duel, Orestes kills this son of Achilles, who killed Priam during the Trojan War.

Ans: Neoptolemus or Pyrrhus
10) Orestes kills Neoptolemus over this woman, the daughter of Helen and Menelaus.

Ans: Hermione
19. Name these early functional psychologists, 5-10-15.
5) He coined the term "stream of consciousness" and wrote the influential textbook The Principles of Psychology. His brother Henry was a famous author.

Ans: William James
10) He wrote the influential article "The Reflex Arc Concept in Psychology," and was heavily involved in the progressive education movement.

Ans: John Dewey
15) He founded America's first psychology journal, established America's first psychology research laboratory, and became first president of the American Psychological Association.

Ans: Granville Stanley Hall
20. FTSNOP, answer the following about a pair of sonnets immortalizing a loved one.
5) This poet and playwright's name is sometimes given to the standard English sonnet. His sonnets include "When in disgrace with fortune and men's eyes."

Ans: William Shakespeare
10) The last two lines of this Shakespearean sonnet are "So long as men can breathe or eyes can see,/ So long lives this, and this gives life to thee."

Ans: Shakespeare's Sonnet 18 or Shall I compare thee to a summer's day?
5) This poet wrote The Shepheardes Calendar and The Faerie Queene.

Ans: Edmund Spenser
10) The 75th begins, "One day I wrote her name upon the strand," and includes the line "My verse your virtues rare shall eternize." Name this collection of 89 sonnets by Spenser.

Ans: Amoretti
21. Name the following title females from Italian operas on a 15-10 basis.
15) She is in love with the Roman proconsul Pollione, and delays the uprising of the Gauls for his sake. Eventually she condemns herself to the stake for betraying her people.
10) This high priestess of the druids is the title character in a Bellini opera composed the same year as La Sonnambula.

## Ans: Norma

15) This sister of Enrico pledges her love to Edgardo, but is forced to marry Arturo. She goes mad, kills Arturo, then dies.
16) She is the title character of a Donizetti opera based on the Sir Walter Scott novel The Bride of Lammermoor.

Ans: Lucia di Lammermoor
22. For the stated number of points, given a well-known work, name its author.

The Portrait of a Lady
Answer: Henry James
Doctor Zhivago
Answer: Boris Pasternak
Barchester Towers
Answer: Anthony Trollope

