

## 1996 Georgia Tech MLK Tossups by Virginia

1. In "The Cross of Snow" he lamented the death of his second wife, Frances Appleton, who burned to death in their home in 1861. After Frances' death his rate of work slowed and he produced such work as *Christus: A Mystery*, and a blank verse translation of the *Divine Comedy*. FTP, identify this American author of *The Arsenal at Springfield*, *The Wreck of the Hesperus*, and *The Village Blacksmith* which contains his famous "Paul Revere's Ride."

Answer: Henry Wadsworth Longfellow

2. To consolidate his power, he allied himself to a communal movement in Amiens to suppress his rival Enguerrand de Coucy. Committed to oppose brigandage, he established a highway from Paris to Orleans to allow safe passage through his domain. FTP, name this Capetian king, whose principal minister was Suger, ruler from 1108 to 1137 who is better known for his unflattering epithet than for his rule.

Answer: Louis VI (the Fat)

3. He argues that the relationships between fundamental social structures are more important than the structures themselves, finding analogies such as that between the development of myth and the advance of scientific thought. These ideas are elaborated in such works as The Savage Mind and Introduction to a Science of Mythology, for which he was elected to the Academie Francaise in 1973. FTP, name this thinker, whose strongest influence on modern thought can be seen in such works as The Elementary Structures of Kinship and Structural Anthropology.

Answer: Claude Levi-Strauss

4. With James Wilson, he led the pro-Constitution forces at the Pennsylvania ratifying convention, and was treasurer of the U.S. Mint for sixteen years. A professor of chemistry at the College of Philadelphia, he published the first American textbook on that subject, but he is better known for his medical work. FTP, name this signer of the Declaration of Independence, a physician who advocated sanitation after the yellow fever epidemic of 1793.

Answer: Benjamin Rush

5. His name was originally given to a sea devil in mystery plays who gave salt to drunks to make them thirstier. Born covered with hair during a drought, he was chained to his cradle, but was so strong that he broke the bonds into five hundred pieces with one blow. FTP, name this son of Badebec, who fought the Dipsodes, lived in Paris with Panurge, and wrote letters to his father, Gargantua.

Answer: Pantagruel

6. Born in Java, he was educated in the Netherlands, obtaining his international pilot's certificate at the age of 20. Toward the end of his life, he moved to the United States, writing an autobiography, The Flying Dutchman, in 1931. FTP, identify this inventor and manufacturer, whose perfection of the interrupter gear made it possible to fire a machine gun through a propeller.

Answer: Anthony Fokker

7. In Europe it is known as Mariotte's law, after the scientist who independently discovered it in 1676. Applying to ideal gases, it states that the volume of a gas at a constant temperature is inversely proportional to its pressure, or that  $pV = \text{constant}$ . FTP, name this law, originally discovered in 1662 by the Irish scientist for which it is named.

Answer: Boyle's law

8. Most of what is known about her comes from letters written by Synesius of Cyrene, the bishop of Ptolemais who was her main pupil. The daughter of Theon of Alexandria, she occupied the chair of Platonic philosophy in that city. Although her writings are lost, the titles suggest that most of her work was on mathematics and astronomy. FTP, identify this Neoplatonist, who was murdered by a Christian mob in 415, subject of a historical romance by Charles Kingsley.

Answer: Hypatia

9. In 1946 he founded a new journal in English, Progress of Theoretical Physics. He started work in 1947 on a comprehensive theory of elementary particles based on his idea of the "nonlocal field," but he is better known for predicting the existence of the meson. FTP, name this physicist who graduated from Kyoto University in 1929 and won the Nobel Prize in 1949.

Answer: Hideki Yukawa

10. His name occurs first in a fragment of Xanthus; according to Pliny, he laughed on the very day of his birth, and lived in the wilderness on cheese. He was said to have lived under the name of Hystaspes, and after many adventures found a protector in Vishtaspa, a king of Bactria. FTP, name this founder of a world religion, whom Plato called the son of Ahura Mazda.

Answer: Zoroaster

11. A carriage road was built over it in 1772, and the first railway was completed there in 1867. From Innsbruck, it rises 25 miles to the summit, and then descends through the Eisack and Adige valleys, ending up in Verona. FTP, identify this pass, known in the Middle Ages as "the route through the valley of Trent," and which is the lowest pass across the Alps.

Answer: Brenner Pass

12. His first work was a translation of Husserl's The Origin of Geometry. Born in Morocco, he was thrown out of high school because he was Jewish, and the idea of Jewish versus Greek thought would become prominent in his theories. FTP, name this philosopher, author of Plato's Pharmacy, Glas, and Of Grammatology, whose concepts of trace and "difference" gave rise to the deconstructive school of literary criticism.

Answer: Jacques Derrida

13. Born to Danish parents in St. Petersburg, his family moved to Germany when he was a boy, and he spent most of his career at the University of Halle. His early work was on the Fourier series; extending his results from that, he developed a theory of irrational numbers. FTP, name this mathematician, whose work was unrecognized during his lifetime, leading to a series of nervous breakdowns and his death in an asylum, famous today for his theory of sets.

Answer: Georg Cantor

14. Although it describes the impact of Darwinism on the author, it does not mention his marriage, or the fact that his wife committed suicide. Subtitled "A Theory of 20th Century Multiplicity," it illustrates the author's dynamic theory of history. FTP, identify this autobiography, published in 1918, describing the career of the author as a student and teacher at Harvard.

Answer: The Education of Henry Adams

15. In the 1930s, he worked at the Moscow Institute of Genetics; after WWII, he became professor of zoology at Indiana University. He described the gene as probably a single molecule, and established the principle of linear linkage with Thomas Hunt Morgan. FTP, name this scientist, who won the Nobel Prize for his discovery of mutations produced by X-rays.

Answer: Hermann Muller

16. He dropped out of high school and was trained under Thomas Hart Benton at the Art Students' League. A member of the Federal Arts Project, he held his first one man show in 1943, featuring such violent works as Wounded Animal. FTP, identify this painter, who broke from realism in the 1940s to produce works like Portrait with a Dream, an abstract expressionist whose death in a car crash in 1956 caused the value of his work to skyrocket.

Answer: Jackson Pollock

17. Born in 1895, he moved to the United States at the age of 18, working as a gardener and dishwasher before finding a job in vaudeville. After World War I, he went to Hollywood, where June Mathis got him his first job, in The Four Horsemen of the Apocalypse. FTP, name this Italian-born actor, who starred in such films as Monsieur Beaucaire, Cobra, Moran of the Lady Letty, and The Son of the Sheik before his untimely death in New York City at the age of 31.

Answer: Rudolph Valentino

18. A rural schoolteacher, her first writings, the Sonnets of Death, were inspired by a lover who committed suicide. Although her early work is passionate, later volumes, such as Ternura and Tala, reflect her interest in children. FTP, identify this Chilean poet, born Lucila Godoy Alcayaga, whose greatest work was 1922's Desolacion, the first Latin American to win the Nobel Prize for literature.

Answer: Gabriela Mistral

19. He was prosecuted for timber fraud after he himself prosecuted William Haywood in 1907, the same year he was elected to the Senate. A supporter of Theodore Roosevelt, he refused to follow him as a Progressive; later, he became a leading advocate of Prohibition. FTP, name this politician, an isolationist who called the Washington Disarmament Conference and influenced foreign policy as chairman of the Senate Committee on Foreign Relations as the senior Senator from Idaho.

Answer: William Borah

20. His works include incidental music to Daudet's play The Woman of Arles and a symphony he wrote in 1855 that wasn't performed until 1935. At the age of 19 he won a prize for the operetta Doctor Mircale and later set Sir Walter Scott's Fair Maid of Perth to music. FTP, identify this composer who died three months after the premier of his most successful work, Carmen.

Answer: Georges Bizet

21. The ownership of Lennox, Nueva, Picton and several small islands in the north are disputed. The 1881 boundary goes from Cape Espiritu Santo on the Atlantic to the west-east Beagle Channel. FTP, identify this archipelago, owned by both Argentina and Chile, which is separated from the mainland by the strait of Magellan.

Answer: Tierra del Fuego

22. Young Bellair, Emilia, Lady Woodvil and Lady Townley are minor characters in this play. Dorimant takes center stage when he falls in love with Harriet after discarding Loveit and Bellinda. FTP, name this Restoration comedy, famous for its portrayal of Sir Fopling Flutter, George Etherege's last work.

Answer: The Man of Mode

23. Its remains were first discovered in Sussex by G. A. Mantell, who did not realize that he had found a dinosaur, and tried to restore it by comparison to a modern lizard. Nothing is known about its ancestors, and only a few of its relatives, such as the Psittacosaurus and the Hypsilophodon, have been identified. FTP, identify this amphibious reptile, which was typically about 20 feet long and 13 feet tall, named for its resemblance to an American lizard.

Answer: Iguanodon

24. Discovered by Cleve in 1879, it is absolutely useless. Occurring in apatite and xenotime, it has only one natural isotope, atomic weight 169, though there are seventeen artificial isotopes. FTP, name this soft gray metallic element, a lanthanide which melts at 1545 degrees Celsius and which has atomic number 69.

Answer: thulium

25. If a beam of monochromatic light is passed through a transparent substance, some of the radiation will be scattered. Some of this radiation will have frequencies either above or below that of the incident beam, known as anti-Stokes and Stokes radiation, due to inelastic collisions between photons and molecules in the substance. FTP, identify this scattering effect, which is used to investigate the energy levels of molecules.

Answer: Raman effect

26. When he tried to protect Parvati from Shiva, the god decapitated him. A short, fat man with four hands, he is the Hindu version of Hermes. FTP, name this god, who is propitiated before any undertaking, the elephant-headed son of Shiva.

Answer: Ganesh

27. In his earliest works, such as Necrology, he experimented with serial music, but turned to collage in the 1960s. After years of silence, he turned to polyphony, producing his third and last symphony during this period. FTP, name this composer, an Estonian who has achieved popularity recently through such works as Tabula Rasa and his Te Deum.

Answer: Arvo Part

28. Much like Shaw's Henry Higgins, he purchased a beggar girl, taught her to act like a lady, and married his valet to her. Interspersed with his story is the tale of Lady Vane's adulteries, which she may have paid the author to include. FTP, identify this picaresque, Tobias Smollett's second novel.

Answer: Peregrine Pickle

29. In 1995, he published his 17th book, Can You Hear, Bird, on the heels of 1994's And the Stars Were Shining and 1993's Hotel Lautreamont. Also an art critic, his interest in painting can be seen in such collections as Some Trees and the Pulitzer Prize-winning Self-Portrait in a Convex Mirror. FTP, name this notoriously difficult American poet, who has been called the most important of the second half of the 20th century.

Answer: John Ashbery

30. The son of an estate manager for the Shibata, who his family replaced as overlords of the Owari province, his first great victory came in 1560, when he defeated Imagawa, lord of Totoni. He installed Ashikaga Yoshiaki as shogun at Kyoto, but deposed and banished him in 1573, taking control of the empire himself. FTP, name this Japanese general, who committed suicide in 1582 and was replaced by Toyotomi Hideyoshi.

Answer: Oda Nobunaga

## 1996 Georgia Tech MLK Bonuses by Virginia

1. Identify the following Romantic poets for 10 points each.

1. He served as Poet Laureate from 1813 to 1843.

Answer: Robert Southey

2. A friend and supporter of Shelley and Keats, this editor of The Examiner's best known poem is "Abou Ben Adhem."

Answer: Leigh Hunt

3. What collection of poems by Wordsworth and Coleridge contains the famous "Lines Written a Few Miles Above Tintern Abbey"?

Answer: Lyrical Ballads

2. For 10 points each, given a description, name the electrical component.

1. Includes a base, emitter, and collector, and can be either PNP or NPN.

Answer: transistor

2. Commonly made up of two parallel metal plates on which charge can build up.

Answer: capacitor

3. Employs coiled wires and is often used for step-up or step-down voltage changes.

Answer: transformer

3. Identify the following battles of the English Civil War, for 15 points each.

1. On 2 July 1644 the Parliamentary forces, led by Cromwell, took control of northern England with this victory.

Answer: Marston Moor

2. On 14 June 1645 the Parliamentary forces won this decisive battle of the war.

Answer: Naseby

4. 30-20-10, name the artist.

30: He painted The Lighthouse at Honfleur, which hangs at the National Gallery, and was an inspiration to many neoimpressionists.

20: His signature style was an advanced form of the divisionism pioneered by Watteau.

10: His masterpiece is Sunday Afternoon on the Island of La Grande Jatte.

Answer: Georges Seurat

5. Give the common name for these protists for 10 points each.

1. Phylum Rhodophyta, having more species than brown algae but fewer than green.

Answer: red algae

2. Phylum Bacillariophyta, autotrophic organisms known for their silica shells.

Answer: diatoms

3. Phylum Myxomycota, comprising about 500 species of these ameba-like colonies.

Answer: slime molds

6. Name the American poets from works on a 10-5 basis.

1. 10: Crossing the Water, Winter Trees

5: Ariel, The Colossus

Answer: Sylvia Plath

2. 10: 45 Mercy Street, Words for Dr. Y

5: Live or Die, The Awful Rowing Toward God

Answer: Anne Sexton

3. 10: Sea Garden, The Flowering of the Rod

5: Bid Me to Live, Helen in Egypt

Answer: H.D. or Hilda Doolittle

7. Identify these Presidents on whose lives unsuccessful attempts were made on a 10-5 basis.

1. 10: He was the first President on whose life an attempt was made.

5: He was shot at by a deranged house painter, Richard Lawrence, in the Capitol Rotunda in 1835.

Answer: Andrew Jackson

2. 10: He was the first ex-President to be shot at.

5: The gunman was saloon keeper John Schrank, the place was a Bull Moose gathering in October 1912.

Answer: Theodore Roosevelt

3. 10: He was the first President-elect to be shot at.

5: Bricklayer Giuseppe Zangara shot at him in Miami in February 1933.

Answer: Franklin Delano Roosevelt

8. The Panama Canal wasn't always going to be in Panama. Answer these questions about what might have been for the stated number of points.

1. 10: What other nation was considered by both the U.S. and Great Britain as a possible site for a canal?

Answer: Nicaragua

2. 5: For 5 points each, name the lake in Nicaragua that would have made it an ideal canal location, and the smaller attached lake.

Answer: Lake Nicaragua, Lake Managua

3. 10: A French company worked on a canal in Panama from 1881-89 under the direction of what man?

Answer: Ferdinand de Lesseps



9. Given a list of countries that border it, name the country for 5 points each. (more than one answer maybe correct)

- |   |                                       |
|---|---------------------------------------|
| 1. Switzerland and Austria  | Answer: <u>Liechtenstein</u>          |
| 2. Guatemala, El Salvador, Nicaragua  | Answer: <u>Honduras</u>               |
| 3. Nigeria, Chad, Central African Republic, Congo, Gabon, Equatorial Guinea | Answer: <u>Cameroon</u>               |
| 4. Peru, Chile, Argentina, Paraguay, Brazil                                 | Answer: <u>Bolivia</u>                |
| 5. Dominican Republic   | Answer: <u>Haiti</u>                  |
| 6. China and India  | Answer: <u>Nepal</u> or <u>Bhutan</u> |

10. For 5 points each, give the SI units used to measure these quantities.

- |                          |                          |
|--------------------------|--------------------------|
| 1. pressure              | Answer: <u>pascal</u>    |
| 2. frequency             | Answer: <u>hertz</u>     |
| 3. magnetic flux         | Answer: <u>weber</u>     |
| 4. electrical resistance | Answer: <u>ohm</u>       |
| 5. inductance            | Answer: <u>henry</u>     |
| 6. radioactivity         | Answer: <u>becquerel</u> |

11. Identify the following about writing for 5 points each and a bonus 5 for all correct.

1. The wedge-shaped writing of the Mesopotamians.  
Answer: cuneiform
2. The picture-writing of the Egyptians.  
Answer: hieroglyphics
3. The Frenchman whose unraveling of the Rosetta Stone made possible the deciphering of hieroglyphics.  
Answer: Jean Francois Champollion
4. A script also used by ancient Egyptian priests in their sacred writings.  
Answer: hieratic
5. Extinct Semitic language whose alphabet was adopted by the Greeks and became the basis of Western alphabets.  
Answer: Phoenician

12. 30-15-5 name the American novel.

- 30: According to a 1991 Book-of-the-Month survey, Americans considered it the fourth most influential book in their lives, behind the Bible, Atlas Shrugged, and The Road Less Travelled, and just ahead of Tolkien's Lord of the Rings.
- 15: It is its author's only book, and she patterned the character Dill after her childhood friend Truman Capote.
- 5: It won the 1960 Pulitzer Prize for its author, Harper Lee.  
Answer: To Kill a Mockingbird

13. Given the description of a layer of the earth's atmosphere, name it for 5 points each and a bonus 5 for all correct.

1. Extremely hot layer between 50 and 280 miles above the Earth, where UV radiation from the sun is absorbed.  
Answer: thermosphere
2. Located at a height of about 15 miles, this layer shrank due to the use of CFCs.  
Answer: ozone layer
3. The bottom layer of the atmosphere, where weather occurs, it contains the majority of atmospheric gases.  
Answer: troposphere
4. As it contains most of the ionosphere, many X-rays and radio waves are reflected in this layer.  
Answer: mesosphere
5. This layer contains the ozone layer and has gases that are generally below thirty-two degrees Fahrenheit.  
Answer: stratosphere

14. Identify these Samuel Beckett plays from plot descriptions for 10 points each.

1. The main character receives reports about disappearances and deaths while his parents sit on the stage in garbage cans.  
Answer: Endgame (or Checkmate, or Fin de partie)
2. The main (and only) character sits alone listening to tapes of monologues he made in his youth.  
Answer: Krapp's Last Tape (or La Dernière Bande)
3. Nothing at all happens; only a faint cry is heard for thirty seconds.  
Answer: Breath

15. The cobra is the most poisonous snake in the whole world, but how well do you know your poisonous American snakes? Identify them from a description for 5 points each and a bonus for all five.

- |  |                               |
|--|-------------------------------|
| 1. The most dangerous poisonous snake in the United States.            | Answer: <u>coral</u> snake    |
| 2. The innocuous snake which very closely resembles the coral snake.   | Answer: <u>king</u> snake     |
| 3. A type of poisonous snake including the small massasauga.           | Answer: <u>rattlesnake</u>    |
| 4. It inhabits swamps and bayous and is also known as the cottonmouth. | Answer: <u>water moccasin</u> |
| 5. Like the rattlesnake and water moccasin, it is a pit viper.         | Answer: <u>copperhead</u>     |

16. Given a composition or compositions, supply the initials of the Bach who wrote it, for 10 points each.

1. Goldberg Variations

Answer: J.S.

2. Double Concerto for Harpsichord and Pianoforte in E flat.

Answer: C (or K).P.E.

3. 1712 Overture

Answer: P.D.Q.

17. Time for another connection bonus. Combine the title of a popular movie and a fairy tale for 10 points each pair.

1. An Oscar-winning Bernardo Bertolucci film and a fairy tale about a nekkid monarch.

Answer: The Last Emperor's New Clothes

2. A Clint Eastwood western and a Hans Christian Andersen tale about a neglected waterfowl who comes into his own.

Answer: The Good, the Bad, and the Ugly Duckling

3. A sci-fi stinker starring Emilio Estevez and Anthony Hopkins and the tale of a brave lad whose bovine vendition leads to an adventures in the clouds.

Answer: Freejack and the Beanstalk

18. Name the willful philosophers who wrote these works for 10 points each.

1. The Will to Power

Answer: Friedrich Nietzsche

2. The Will to Believe

Answer: William James

3. The World as Will and Representation

Answer: Arthur Schopenhauer

19. For 15 points each, give the following quantities. Pencil and paper may be needed.

1. The number of liters occupied by a gas at four atmospheres if it occupies eighty liters at three atmospheres.

Answer: 60

2. The number of moles of methane in fifty-six grams of methane.

Answer: 3.5

20. Name the following Congressional floor leaders for 10 points each.

1. This Congressman from St. Louis currently serves as the Minority Leader of the House.

Answer: Richard Gephardt

2. This man served as Majority Leader of the Senate from 1985-87, just before the Democrats took control. He served in WWII and lost the use of his right arm due to injuries incurred as an infantryman.

Answer: Robert Dole

3. A Senator from Kentucky who served as Chairman of the Senate Rules and Administration Committee during the 103rd Congress, he is the Minority Whip.

Answer: Wendell Ford

21. 30-20-10 identify the chemical compound.

30: Its chemical formula is C<sub>20</sub>H<sub>24</sub>N<sub>2</sub>O<sub>2</sub>.

20: It was discovered by Robert Burns Woodward.

10: Its most common use is to combat malaria.

Answer: quinine

22. Identify the Shakespearean characters for 10 points each:

1. the daughter of Cymbeline

Answer: Imogen

2. the mother of Coriolanus

Answer: Volumnia

3. the daughter of Titus Andronicus

Answer: Lavinia

23. For 10 points each, answer the following questions about genetics.

1. According to the Hardy-Weinberg Principle, the frequency of heterozygous individuals in a population with allele frequencies "p" and "q."

Answer: 2pq (accept  $2p(1-p)=2p-2p^2$  or  $2(1-q)q=2q-2q^2$ )

2. The principle which states that chromosomes align independently of each other during metaphase of mitosis.

Answer: Principle of Independent Assortment

3. The probability of getting a homozygous recessive individual from a cross between the offspring of a homozygous dominant and a homozygous recessive.

Answer: one-fourth, or 25%

24. Given the signer of the Declaration of Independence, name the colony he represented, for 5 points each.

1. the Reverend John Witherspoon

Answer: New Jersey

2. Mr. Lewis Morris

Answer: New York

3. Mr. Roger Sherman

Answer: Connecticut

4. Dr. Josiah Bartlett

Answer: New Hampshire

5. Dr. Lyman Hall

Answer: Georgia