

1996 Georgia Tech MLK Tossups by Maryland II (V. Jejjala)

1. Following the success of Chester Gould's Dick Tracy, William Randolph Hearst hired this man to develop the stories and write the dialogue for Secret Agent X-9, a competing comic strip. A former Pinkerton detective and San Francisco advertising writer, he made himself known to the readers of the pulp magazine Black Mask with a nameless private detective known as the Continental Op. Later came the husband and wife detective team of Nick and Nora Charles. FTP, name this man whose most famous creation appeared in such short stories as "They Can Only Hang You Once," "Too Many Have Lived," and "A Man Called Spade."

Answer: Dashiell Hammett

2. It equates the experimental cell potential to the standard cell potential, the number of moles of electrons indicated in the reaction, the absolute temperature, the ideal gas constant, Faraday's constant, and the log of the ratio of the reacting species. In addition to Faraday's laws of electrolysis, it is one of the fundamental theorems of electrochemistry. FTP, identify this law discovered by the man who developed the Third Law of Thermodynamics.

Answer: Walther Nernst Equation

3. The German assault was directed by Erich von Falkenhayn and began with a furious bombardment of Fort Douamont. The French commander Joseph Joffre dispatched Henri Petain to head the counter offensive. Fighting under the motto "They Shall Not Pass," the French stopped German advances in March and April 1916. After a prolonged stand-off, the French under Charles Mangin, recaptured Fort Douamont and Fort Vaux. FTP, name this battle, an unsuccessful German attempt to take the offensive in the West, which was one of the longest and bloodiest campaigns of World War I.

Answer: Battle of Verdun

4. The wife of Ninus, she was abandoned by her mother, the fish goddess Derceto, and nurtured by doves. After Ninus died, she ruled in the place of their son Ninyus for many years. The leader of campaigns against neighboring states, she founded Babylon. When her son plotted against her, she disappeared in the shape of a dove and was soon worshiped as a deity, sharing many characteristics with Ishtar. FTP, who is this mythical Assyrian queen who was the subject of the last Italian opera by Rossini?

Answer: Semiramis or Semiramide

5. Three of its dramatic monologues are devoted to popular opinion, three to the principals--a murderer, the murdered, and the rescuer, and three to the courts--the prosecutor, the defender, and the Papal adjudicator. Based upon a celebrated Roman murder case of the end of the seventeenth century, in addition to being an analysis of the human condition, it is also a Victorian summation of the poet's attitude towards poetry as an institution. The work's title artifacts are an Etruscan heirloom belonging to the poet's wife and an ancient Florentine text that describes the case. FTP, identify this work published in 1868 by Robert Browning.

Answer: The Ring and the Book

6. Once known mostly from the writings of its opponents, original documents regarding this religion were found near the Egyptian town of Nag Hammadi in 1945. Associated with the Samaritan sorcerer Simon Magus in Acts, it reached its height under the second century teachers Tatian, Basilides, and Valentinus. It held that a pervasive dualism between spirit and matter arose through a cosmic tragedy in which sparks of deity became entrapped in the physical world. FTP, identify this religion that held that the only way to transcend the disjunction between the incorporeal and the physical worlds was through divine "knowledge" imparted by a holy messenger.

Answer: Gnosticism

7. He believed that there were exactly 136×2^{256} protons and an equal number of electrons in the universe. With Schwarzschild, he attempted an explanation of the period-luminosity relationship of Cepheid variables. The first to correctly determine that stars are shaped by the effects of radiation pressure and gas pressure, he wrongly argued that there is no limit to the mass of a star through an erroneous interpretation of electron degeneracy. FTP, identify this Quaker scientist, who, with Astronomer Royal Frank Dyson, organized expeditions to Brazil and West Africa to test General Relativity's prediction that the sun bends starlight during an eclipse.

Answer: Arthur Stanley Eddington

8. Born Makhpiya Luta, he attacked immigrants encroaching on Indian territory near the North Platte River. Discouraging intrusion by way of the Bozeman Trail, he led the 1866 massacre of 80 federal troops at Fort Kearney. Following an 1868 peace treaty which he signed in Washington, he settled down on a reservation prompting his contemporaries Sitting Bull and Crazy Horse to conclude that he sold out to the white man. FTP, identify this head chief of the Oglala Lakota Sioux.

Answer: Red Cloud

9. Members of the Masai tribe inhabit its lower parts, where there are also coffee plantations. Discovered by Johannes Rebmann and Ludwig Krapf, it is the legendary burial site of King Solomon. Part of the title of a famous Hemingway short story, it is also the mythical haunt of a fierce snow leopard. Kibo is 5,895 meters high while Mawenzi is 5,149 meters high. FTP, name this twin-peaked, snow-covered inactive volcano on the plains of northeastern Tanzania close to the border with Kenya.

Answer: Mt. Kilimanjaro

10. After leaving his family's wool business, he worked as an orange planter in Florida before matriculating at the Leipzig Conservatory. Despite his education, he felt that he learned more from his friend Edvard Grieg than from any of his teachers. His first successes in Germany included the choral work Sea Drift and the opera Koanga. His London champion Sir Thomas Beecham conducted the first performance of his Mass of Life in 1909. Blind and paralyzed later in life, he could compose only with the help of his secretary Eric Fenby. FTP, identify this man deeply influenced by Scandinavian folk-songs and Wagnerian opera who composed First Cuckoo in Spring and A Village Romeo and Juliet.

Answer: Frederick Delius

11. Receiving a humanist education in Milan, he served as the Holy See's ambassador to Henry VII from whom he accepted the Order of the Garter. He may have been assassinated at Toledo in 1529 by Papal operatives for his failure to foresee Charles V's designs on Rome. A Renaissance scholar of the highest rank, he penned the epitaph on his friend Raphael's tombstone. FTP, identify this man, made a count by Francesco Maria della Rovere, who is best remembered for idealizing the court of Urbino between 1508 and 1516 in his Book of the Courtier.

Answer: Baldassare Castiglione

12. It was first proposed in 1850 by Francis Guthrie. In 1879, A.B. Kempe offered a proof that was later shown to be incomplete. A correct proof was offered in 1976 by Kenneth Appel and Wolfgang Haken who developed an exhaustive catalog of 1,936 unavoidable configurations that all satisfy the theorem. FTP, identify this topological problem, solved through the use of supercomputers, that is of special interest to cartographers.

Answer: Four-Color Map Problem or Theorem

13. Coming from the Carignan line, he was denied a commission in Louis XIV's army and instead sought his fortune with the Emperor Leopold I as a volunteer in the army that lifted the Turkish siege of Vienna. Soon promoted to general, he won crushing victories over the Turks at Zenta, Peterwardein, and Belgrade. During the War of the Spanish Succession, he shared command with the Duke of Marlborough and defeated the French. FTP, identify this celebrated soldier who also negotiated the Peace of Rastadt.

Answer: Prince Eugene of Savoy

14. Most forms are derived from skepticism and argue that the only things of which genuine knowledge is possible are the mind and its contents. A variant of this form argues that only in the first person case is knowledge of the mind possible. In its most extreme form, it holds that all perceived objects and events are merely the products of personal consciousness and that this consciousness alone is genuinely real. FTP, identify the philosophical view that only the self exists or can be known to exist.

Answer: solipsism

15. It is often accompanied by anencephaly, the gross reduction in the size of the cerebral hemispheres. A developmental abnormality of the embryonic axis in which neural folds fail to complete the closure of the neural tube, the result is that the communication between the cavity of the neural tube and the embryonic gut remains open. FTP, identify this debilitating developmental condition that hinders the formation of the vertebral column.

Answer: Spina Bifida

16. When the novel opens, the title character is reduced to living in a mean forty-five franc room on the third floor. Unhappy and unkempt, he is visited by two glamorous Parisian women, "too pretty to be good," who call infrequently and surreptitiously. Only the impoverished but ambitious law student Eugene Rastignac believes him when he says that the women are his daughters. FTP, identify this tale of the excessive paternal love of a retired vermicelli merchant that is a key novel in Balzac's Human Comedy.

Answer: Pere Goriot or Father Goriot or Old Goriot

17. Apprenticed to Piero di Cosimo, his own students included Pontormo, Rosso Fiorentino, and Vasari. A poem by Robert Browning suggested that the absence of excitement in his personal life led him to depict figures lacking in emotional depth. After Leonardo, Michelangelo, and Raphael left Florence, he painted psychologically animated frescoes in the Chiostrò dello Scalzo and the cloisters of Santissima Annunziata. FTP, name this High Renaissance master whose characteristic classical formal harmony, deep colors, and sensitivity is evident in such works as The Madonna of the Harpies.

Answer: Andrea del Sarto

18. He served briefly as director of the Office of Civilian Defense during World War II and as head of the UN Relief and Rehabilitation Administration after the war. The author of the autobiography, The Making of an Insurgent, he was well known for bravely attempting to conduct the New York Philharmonic Orchestra, banning organ-grinders from the streets in order to remove a source of prejudicial stereotypes against Italians, and reading comic strips over the radio to entertain children during a newspaper strike. Known affectionately as the "Little Flower," he led a drive against political corruption in New York City. FTP, name this man elected mayor in 1933 on a Fusion ticket and re-elected twice to that office.

Answer: Fiorello La Guardia

19. Since it was developed at the Fifth Solvay Congress in Brussels in 1927, its name is something of a misnomer. Essentially, it is an admission that a complete understanding of reality was beyond the capacity of rational thought. It argues that all events are possible until a specific event is triggered that eliminates all other branching realities and asserts that a description of matter at an atomic level was given by probability functions that referred to the macroscopic objects of sense experience. Einstein vehemently dissented from this position claiming that "the most incomprehensible thing about the Universe is that it is comprehensible." FTP, what was this quantum mechanical view point championed by Niels Bohr?

Answer: Copenhagen Interpretation of Quantum Mechanics

20. Often in its pages the merchant Sir Andrew Freeport, a Whig representative of the new order, takes on the Tory Sir Roger de Coverley, who is presented as belonging to the vanishing aristocracy. Sir Roger, who became one of its most enduring characters, is depicted in town and country as an endearing and eccentric fellow, often absurd but always amiable and innocent. Other members of the club to which Sir Andrew and Sir Roger belong include Captain Sentry and Will Honeycomb. FTP, identify the literary magazine about the club produced by Addison and Steele from 1711-14 whose precursor was The Tatler.

Answer: The Spectator

21. They were determined through paper chromatographic techniques in 1949. Data indicated that in a dozen organisms from yeast to man, the ratio of purines to pyrimidines, of adenine to thymine, and cytosine to guanine was almost exactly one. FTP, identify this empirical observation that contributed to the double helix model for DNA or the name of the man who developed them.

Answer: Chargaff's Rules

22. The violence began when the heirs of Stephen Van Rensselaer, a major landlord, tried to collect \$400,000 in back rent. The tenants refused to pay and, disguised as Indians, resisted attempts to foreclose on their farms. The protests spread, and in 1845, after the death of a sheriff's deputy, Gov. Silas Wright of New York called out the militia. More than 50 men were arrested. Public opinion was on the side of the farmers, however, and in 1846 a new state constitution banned "feudal tenures." FTP, what name is given to this series of violent protests by tenant farmers in New York State against the semimanorial system of land tenure on the great Hudson Valley estates?

Answer: Anti-Rent War

23. He won distinction in the Punic Wars and was elected consul five times. Waging war against the Insubres in Gaul and defeating their chief in single combat in 222 BC, he held off Hannibal three times at Nola. Patiently outlasting Archimedes' brilliantly engineered defenses, he took Syracuse in 211. FTP, who, after defeating a Carthaginian force near Himera, was defeated near Venosa by Hannibal and died on the battlefield in 208 BC?

Answer: Marcus Claudius Marcellus

24. David Hilbert said that if he, like Barbarossa, were to wake up millennia hence, the first action he would undertake would be to inquire whether this mathematical problem had been solved. Consider a complex number z . It asserts that zero equals 1 plus 1 over 2^z plus 1 over 3^z plus et cetera if and only if the real part of z is one-half. In the intervening decades, it has been shown that an infinite number of solutions satisfy this proposition. FTP, identify this theorem devised in 1859 by a nineteenth century German mathematician whose proof still eludes modern mathematics.

Answer: Reimann Hypothesis concerning the zeroes of the Zeta-function

25. With a musical score by John Pepusch, it is really a singspiel instead of a true opera. A burlesque comedy, the plot revolves around the rivalry of the rakish Captain Macheath, a highwayman, and Jeremy Peachum, a fence. Premiering in Lincoln's Inn Fields in 1728, it is set among the thieves and prostitutes of London's lowest classes. Each character in the work is a thinly veiled representation of Robert Walpole and members of his Whig administration. FTP, identify this work penned by John Gay.

Answer: The Beggar's Opera

1996 Georgia Tech MLK Bonuses by Maryland II (V. Jejjala)

1. Identify these Pulitzer prize winning historians from the work and the year for 5 points each.

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| 1. Pinckney's Treaty, 1927 | Answer: Samuel Flagg <u>Bemis</u> |
| 2. My Experiences in the World War, 1932 | Answer: John J. "Blackjack" <u>Pershing</u> |
| 3. The Flowering of New England, 1937 | Answer: Van Wyck <u>Brooks</u> |
| 4. The Age of Jackson, 1946 | Answer: Arthur M. <u>Schlesinger Jr.</u> |
| 5. The Americans: The Democratic Experience, 1974 | Answer: Daniel J. <u>Boorstin</u> |
| 6. Mary Chestnut's Civil War, 1982 | Answer: C. Vann <u>Woodward</u> |

2. Identify these terms from cosmology, for 10 points each.

1. If light is to travel from point A to point B, the trajectory it follows is the shortest distance connecting those two points in space-time. In a Euclidean universe, it would be a straight line. What is this called?

Answer: geodesic

2. A black hole is a singularity bounded by this region beyond which light (or anything else) cannot escape.

Answer: event horizon

3. Provide the technical term for a wormhole, a name which uses two of the three proponents of the EPR paradox.

Answer: Einstein-Rosen Bridge

3. Identify the poet from a quotation for 10 points, or 5 points if you need the poem's name.

1. 10: "A thing of beauty is a joy forever: / Its loveliness increases; it will never / Pass into nothingness."

5: Endymion

Answer: John Keats

2. 10: "His brow is wet with honest sweat, / He earns whate'er he can, / And looks the world in the face, / For he owes not any man."

5: The Village Blacksmith

Answer: Henry Wadsworth Longfellow

3. 10: "Oh as I was young and easy in the mercy of his means, / Time held me green and dying / Though I sang in my chains like the sea."

5: Fern Hill

Answer: Dylan Marlais Thomas

4. Identify these knights from Arthurian myth on a 10-5 basis.

1. 10: He was assassinated by the Orkney clan for killing their father King Lot in a joust.

5: He spent most of his time in pursuit of the elusive Questing Beast.

Answer: King Pellinore

2. 10: He married the Lady Lynette after saving her from the clutches of the mad Red Knight.

5: After disguising his identity in King Arthur's kitchen, he was made a knight by Sir Lancelot, who later accidentally killed him.

Answer: Sir Gareth

3. 10: He was the master of the Castle of the Forest Savage.

5: The man who took the infant Arthur in under the instructions of Merlin, his son was Sir Kay.

Answer: Sir Ector

5. Answer these questions about the Boer War for the stated number of points.

1. 5 points for one, 15 points for both: what two republics revolted to protest the reinforcement of a British garrison in South Africa?

Answer: Orange Free State and Transvaal

2. For 10 points, identify the British field marshal and last commander-in-chief of the British Army who assumed command of English troops in South Africa and whose chief of staff was Lord Kitchener. Other highlights of his long military career include suppression of the Sepoy Mutiny and distinguished service in the Second Afghan War.

Answer: Frederick Sleigh Roberts

3. For 5 points, what peace treaty concluded the Boer War?

Answer: Peace of Vereeniging

6. Given a description of the nineteenth century painting identify it for 10 points each, 5 points if you need the artist.

1. 10: Modelled on the Venus of Urbino, it created a scandal when it was exhibited in the salon in 1863. It depicts a nude woman on a bed attended by her black servant woman.

5: Edouard Manet

Answer: Olympia

2. 10: This 1855 painting subtitled "A True Allegory Concerning Seven Years of My Artistic Life" portrays the painter at work in his studio amid an inattentive assembly of undistinguished figures to his left and his Parisian friends to his right. He paints a landscape in an indoor room ignoring the nude model behind him.

5: Gustav Courbet

Answer: The Artist in His Studio or The Painter's Studio etc.

3. 10: An exercise in pointillism, this 1833 work depicts people out for an afternoon excursion on the banks of the Seine. Two boys are waist deep in water while a third sits on the bank with his feet immersed.

5: Georges Seurat

Answer: The Bathers

7. Given a list of characters, identify the play in which they appear for 5 points each and a bonus 5 for all correct.

1. Eilert Loevborg, George Tesman, Mrs. Elvsted

Answer: Hedda Gabler

2. Estelle, Garcin, Inez

Answer: No Exit

3. Orgon, Mariane, Valere

Answer: Tartuffe

4. Michael James Flaherty, Shawn Keogh, Christy Mahon

Answer: The Playboy of the Western World

5. Lady Bracknell, Algernon Moncrief, Cecily Cardew

Answer: The Importance of Being Earnest

8. There are too many questions about minutiae from Tolkien, Star Wars, and Star Trek, so instead we'll test your knowledge of Frank Herbert's epic Dune. For the stated number of points answer these questions.

1. 5: Duke Leto's house, through imperial machinations, is maneuvered to what desert planet where the spice grows?

Answer: Arrakis

2. 5: Identify the noble house which is the traditional enemy of the Atreides clan that assassinates Duke Leto and takes over Arrakis.

Answer: Harkonnen

3. 10: What name is given to the ancient school of mental and physical training established for female adepts?

Answer: Bene Gesserit

4. 10: What name is given to a male Bene Gesserit whose organic mental powers would bridge space and time? Duke Paul Muad'Dib achieves this state after drinking spice water.

Answer: Kwisatz Haderach

9. Identify these opera on a 10-5 basis.

1. 10: Based on a play by David Belasco, its 1904 premiere at La Scala was a dismal failure. After being significantly restructured, this Puccini opera became tremendously popular.

5: It tells the story of Benjamin Franklin Pinkerton, an officer aboard the Abraham Lincoln.

Answer: Madama Butterfly

2. 10: The love between Anne and Fenton is a recurring motif in this opera with a libretto by Arrigo Boito.

5: Based on a Shakespearean theme, it was Verdi's last opera.

Answer: Falstaff

3. 10: Among the most famous scenes in this opera is the title heroine's encounter with a ghost prior to her meeting with Edgar Ravenswood.

5: This Donizetti opera is based on a Walter Scott novel that tells the story of Lucy Ashton.

Answer: Lucia di Lammermoor

10. Identify the philosopher from the quotation for 10 points each, given a title for 5 points each.

1. 10: "My atheism, like that of Spinoza, is true piety towards the universe and denies only gods fashioned by men in their own image, to be servants of their human interests."

5: The Last Puritan

Answer: George Santayana

2. 10: "I am never to act otherwise than so that I could also will that my maxim should become a universal law."

5: Critique of Judgement

Answer: Immanuel Kant

3. 10: "We shall be wise to build our philosophy upon science, because the risk of error in philosophy is sure to be greater than in science."

5: Marriage and Morals

Answer: Bertrand Russell

11. 30-20-10, identify the writer.

30: His hope to build a new social existence at Taos, New Mexico reminiscent of the idealistic dreams of Rousseau and Coleridge was shattered by jealousy between Mabel Dodge Luhan, a devoted admirer and his wife.

20: Though better remembered as a novelist, he wrote such short stories as "The Rocking Horse Winner" and "The Lovely Lady," and the poetry collection Look! We Have Come Through.

10: Brother-in-law of the Red Baron, his novels included The White Peacock and The Rainbow.

Answer: David Herbert Lawrence

12. Identify the American psychologist from clues for 10 points each.

1. After receiving his degree from Oxford, he went to Leipzig to study under Wilhelm Wundt before becoming a professor at Cornell. He was the principal advocate in the United States of controlled introspection as the best investigative technique for psychology.

Answer: Edward Bradford Titchener

2. Born in South Carolina, he received his doctorate at Chicago and was a professor of psychology at Johns Hopkins. The principal spokesman for Behaviorism during the formative years of American psychology, he was influenced by Pavlov's experiments and was an advocate of environmentalism stressing the role of the milieu in shaping behavior.

Answer: John Broadus Watson

3. Influenced by Watson, he was also a Behaviorist. Receiving his degree from Harvard, he was a professor there until his death. He wrote the utopian novel Walden Two and developed a box useful in the study of animal behavior.

Answer: Burrhus Frederic Skinner

13. Answer these questions about neurons for the stated number of points.

1. 5: These tendrils emanate from the soma and receive impulses from adjacent neurons. Answer: dendrites
2. 5: These cells form the myelin sheath around the axon. Answer: Schwann cells
3. 10: This is the name given to exposed parts of the axon along a myelinated neuron. Answer: Nodes of Ranvier
4. 10: These are the most numerous cells in the brain. They help nourish neurons. Answer: glial cells or glia

14. Given the historical event, identify the Chinese dynasty in power at the time it occurred for 10 points each.

1. The Declaration of Independence is written. Answer: Ch'ing or Manchu
2. Battle of Lepanto is fought. Answer: Ming
3. Charlemagne is crowned emperor. Answer: Tang

15. Identify these novels found on my bookshelf from a synopsis of their back covers for the stated number of points.

1. 5: It is a magnificent novel of the men and women whose destinies were changed forever by the Russian Revolution. It is the story of a poet and physician, his struggle to keep his wife and children alive and happy in the midst of overwhelming chaos, and his tender love for the beautiful Lara.

Answer: Doctor Zhivago

2. 10: On a visit to the Kirsanov estate, Bazarov's scathing comments threaten the integrity of each of his hosts: the old landowner Nicholas, who prides himself on his mistress; the old man's decadent brother Paul, who prides himself on his fashionable lack of purpose; and Arkady who prides himself on his intellectual acumen.

Answer: Fathers and Sons

3. 15: Belbo, Diotallevi, and Causabon are three editors who spend their time reviewing crackpot manuscripts for a series of books about the occult. Inspired by a story told to them by a crazy colonel, they feed esoteric bits of knowledge into a computer that invents connections between their entries in an intricate game. Unfortunately, the game starts taking over.

Answer: Foucault's Pendulum

16. Identify these battles of the American Revolution from the date for 10 points or from another clue for 5 points.

1. 10: June 17, 1775
 - 5: General William Howe wins a pyrrhic victory over Colonel William Prescott and General Israel Putnam.Answer: Battle of Bunker Hill or Battle of Breeds Hill
2. 10: September 11, 1777
 - 5: William Howe defeats George Washington in this Pennsylvania battle fought near a creek.Answer: Battle of Brandywine
3. 10: June 28, 1778
 - 5: George Washington defeats Henry Clinton in this battle that led to the legend of Molly Pitcher.Answer: Battle of Monmouth

17. For 10 points each identify the founders of these religions.

1. Sikhism Answer: Guru Nanak
2. Jainism Answer: Mahavira Vardamana
3. Baha'i Answer: Bahau'llah

18. 30-20-10 identify the scientist.

- 30: He was nearly killed by an explosion of fireworks that he set off to celebrate the repeal of the Stamp Act. During the American Revolution he served as a British spy.
 - 20: In London, he worked for the British Colonial Office and conducted experiments on gunpowder. Knighted in 1784, he became an aide-de-camp to Elector Karl Theodor of Bavaria.
 - 10: Made a count in 1790, the boring of cannon led him to conclude that heat was simply a different form of motion.
- Answer: Benjamin Thompson, Count Rumford

19. Identify the black American who wrote the following for 5 points each, and a 5 point bonus for all.

1. Notes of a Native Son Answer: James Baldwin
2. Jonah's Gourd Vine Answer: Zora Neale Hurston
3. Uncle Tom's Children Answer: Richard Wright
4. The Autobiography of an Ex-Colored Man Answer: James Weldon Johnson
5. Shadow and Act Answer: Ralph Ellison

20. Given an unsolved problem from mathematics, name it for the stated number of points.

1. 10: It states that every even number above 4 is the sum of two primes.
Answer: Goldbach Conjecture
2. 20: Consider a complex number z . It asserts that zero equals 1 plus 1 over 2^z plus 1 over 3^z plus et cetera if and only if the real part of z is one-half.
Answer: Reimann Hypothesis