

## Quadrilateral Commission Round for the 1996 Masters Tournament

1. It is explosive on contact with air, and is therefore stored under pressure dissolved in acetone. It is a common raw material for many organic reactions and is used in the manufacture of neoprene, vinyl chlorides, and other plastics and resins. Mixed with oxygen it can produce a very hot flame that can cut steel and weld iron. FTP, name this colorless gas, the simplest of the alkynes, with formula  $C_2H_2$ .

Answer: Acetylene (or Ethyne)

2. This city, with a population of nearly a million is located on the Jumna River in the state of Uttar Pradesh. A district administrative headquarters, it produces shoes, glassware, carpets, and other goods. Founded by Akbar, it was a Mogul capital until 1658. It is noted for its architecture, such as the Pearl Mosque, and is a noted tourist site. FTP, name this Indian city most famous for its tomb of Shah Jehan and his wife, the Taj Mahal.

Answer: Agra, India

3. "Knowledge of literature, philosophy, and astronomy—nil. Ignorant of the Copernican theory and of the composition of the Solar System. Knowledge of botany—variable, but well up on belladonna, opiums, and poisons generally. Knowledge of Geology—practical, but limited. Knowledge of Chemistry—Profound. Knowledge of Sensational Literature—Immense. He appears to know every detail of every horror perpetrated in the century. Plays the violin well, is an expert boxer and swordsman, and has a good practical knowledge of British law." FTP, this is the evaluation of what fictional Englishman as recorded in the notebook of his observant companion Dr. John Watson?

Answer: Sherlock Holmes

4. Developed entirely in the US by crossing bloodhounds with foxhounds, its varieties include redbone and bluetick but the American Kennel Club only recognizes the black and tan. For ten points, what breed is used to hunt members of the genus *Procyon*, the raccoons?

Answer: Coonhound

5. Alvaro Campos was a sailor who wrote Whitmanesque free verse; Alberto Caeiro was a shepherd who wrote naively mystical poems; Ricardo Reis, a Brazilian doctor, wrote neoclassical metrical poetry. All were pseudonyms, or as he called them "heteronyms," of one man who wrote under his own name poetry & the recently thrice-translated Book of Disquiet. For ten points who is this 20<sup>th</sup>-century Portuguese poet nominated for The Western Canon by Harold Bloom?

Answer: Fernando Pessoa (pronounced pesh-o-a)

6. On the Prejudices of Philosophers, The Free Spirit, What Is Religious, Epigrams and Interludes, Natural History of Morals, We Scholars, Our Virtues, Peoples and Fatherlands, What Is Noble, and the Afersong "From High Mountains". These sections form, FTP, what work by Friedrich Nietzsche that systematizes the Apollonian Dionysian philosophy expressed in Thus Spake Zarathustra?

Answer: Beyond Good and Evil

7. Born in Shaftesbury, England in 1802, he worked there as a cabinetmaker before emigrating to Massachusetts in 1829. His early architectural works were in the neoclassical style, but he soon switched to a gothic style. For 10 points, name the architect who spearheaded the gothic church revival in the U.S., best known for New York City's Trinity Church.

Answer: Richard Upjohn

8. This famous Elizabethan sea dog began his career working for the Lok family of merchants. Although he was arrested several times for piracy, he was never tried. He was decorated for his efforts against the Spanish armada, but is best known today for the three exploratory voyages he made between 1576-8 in search of the northwest passage. For 10 points, name this navigator who incorrectly identified the Bay near Baffin Island that bears his name today as the northwest passage.

Answer: Sir Martin Frobisher

9. Born in Piqua (pronounced pick-way), Kansas, October 4, 1895 where his vaudevillian parents were performing, he himself was a performer from infancy and had only 1 day of formal education. While serving with the American Expeditionary Force he was almost deafened by an illness, but most of his injuries came after he left Fatty Arbuckle to make his own comedies, including an unnoticed broken neck while filming Sherlock Junior. For ten points who is the comic who made The Cameraman, The Navigator, & The General?

Answer: Buster Keaton

10. This Indiana native received his Ph.D. in chemistry from Berkeley in 1923. Discrepancies in the atomic weight of hydrogen led him to postulate the existence of deuterium, an isotope which he discovered in 1931. For 10 points, name this scientist who directed the uranium isotope separation efforts during the Manhattan Project.

Answer: Harold Clayton Urey

11. Jesus' sayings in this Gospel include "He who knows the father and the mother will be called the son of a harlot" & "Become passers-by," as well as many with parallels in the synoptic gospels. Composed in the late 1<sup>st</sup> or early 2<sup>nd</sup> century, it is attributed to Jesus' twin brother by the Syrian church. For ten points what is this Gnostic-influenced book of sayings, thought by many to have historical claims as good as the canonical books, which shares its name with Jesus' doubting disciple?

Answer: Gospel of Thomas

12. This class of drugs has a name which might remind you of second-string offensive linemen. Propanolol is a commonly prescribed example. They work by competing with epinephrine for receptor sites within the sympathetic nervous system, and can lower blood pressure and heart rate, stop arrhythmias, and prevent migraine headaches. FTP, what two-word term identifies this class of drugs?

Answer: Beta Blockers

13. In 1818, as U.S. minister to Britain, he and Albert Gallatin negotiated a treaty that determined the boundary between the U.S. and Canada. In 1828 he ran unsuccessfully for vice-president on the ticket with John Quincy Adams. But he is best remembered for the treaty he negotiated in 1817 with a British diplomat which demilitarized the Great Lakes. FTP, name this American counterpart of Charles Bagot.

Answer: Richard Rush

14. This woman, a contemporary of Mary Baker Eddy, also underwent a spiritual conversion after a narrow escape from death. Born in Ekaterinoslav, Russia with the last name Hahn, she is better known by the name of her first husband, a general in the tsar's army. Traveling to Egypt and the United States, she became interested in occult sciences and won many converts, including Annie Besant. FTP, name this author of Isis Unveiled, the founder of Theosophy.

Answer: Helena Blavatsky

15. Its Turkish name is Gelibolu and in classical geography it was known as Thracian Chersonese. A narrow, hilly peninsula about 50 miles long, it extends into the Aegean Sea. For 10 points, name this peninsula, the site of an unsuccessful allied campaign aimed to take control of the Dardanelles.

Answer: Gallipoli

16. The name's the same: the 6<sup>th</sup>-century Greek historian known as the Protector; the 2<sup>nd</sup>-century BCE Greek king in India who is the subject of the Buddhist catechism Questions of Milinda; the 4<sup>th</sup>-century BCE Athenian playwright whose only surviving complete play is the Dyscolos and who, for ten points, is the greatest exponent of New Comedy.

Answer: Menander

17. Proving Grounds of the Mad Overlord, Knight of Diamonds, Legacy of L'legamyn, Return of Werdna, Heart of the Maelstrom, Bane of the Cosmic Forge, Crusaders of the Dark Savant. These are the subtitles, FTP, of the seven games in what best-selling computer game series by Sir-Tech software?

Answer: Wizardry

18. Born in Knoxville in 1943, she grew up in Cincinnati but attended Fisk University, where she was politically active. She published her first book of poetry in 1968 & joined in the Black Arts movement, becoming a star reader on the university lecture circuit. Her poetry collections include Ego Tripping and Other Poems for Young Readers, while she's also written the autobiographical Gemini and, for ten points, the recent essay collection Racism 101.

Answer: Nikki Giovanni

19. After Ferdinand VII of Spain changed the law to allow his sister, Isabella II, to succeed him in 1833, his brother, the Count of Molina, claimed the throne and initiated an unsuccessful civil war. This branch of the family continually claimed the throne thereafter and supported Franco's Nationalists in the Spanish Civil War. Their dynastic claims were ended in 1969 by the naming of Bourbon to the throne. FTP, name this group or its founder.

Answer: Carlists (or Don Carlos or Charles V)

20. The structure of this molecule was first deciphered in 1969 by Gerald Edelman and his co-workers. At the outermost half of each arm of the molecule there are antibody combining sites. For 10 points, name this blood protein produced by the lymphocytes which is the most abundant type of antibody in the human body.

Answer: Gamma Globulin (accept IgG)

21. It is home to Beauvoir, Jefferson Davis's final home, although most visitors seem to come for the casinos. Even though it was ranked along with neighboring Gulfport in Money Magazine's top 300 places to live, Neil Simon wasn't sure he could stay there "if it's gonna be this hot" in his play about basic training in World War II made into a movie starring Matthew Broderick. FTP, name this Gulf Coast city.

Answer: Biloxi, Miss.

22. Known as "Patroon," he graduated from Harvard in 1782 and managed his family's vast estates around Albany, NY. A major general during the War of 1812, he later served in Congress where he cast the deciding vote for John Quincy Adams in the 1824 presidential election. For 10 points, name this man most famous today for donating funds to found a scientific school in Troy, NY.

Answer: Stephen Van Rensselaer

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1. At last, a geology bonus that doesn't have Gondwanaland or terminal moraine as an answer. For 10 points each, identify the terms which can be described as follows.

1. Deposits of clay, gravel, sand, and boulders, transported and laid down by glaciers. Specific types include eskers and moraines.

Answer: Drift

2. The greater part of drift, it consists of unstratified heaps of rocks.

Answer: Till

3. Drift can take many forms. What term identifies a smooth, oval hill elongated in the direction of movement of the ice that deposited it?

Answer: Drumlin ✓

2. North Carolina's a nice state but it's seen its share of memorable atrocities in the last century. Identify the sites of the following incidents for ten points each.

1. An elected Populist-Republican coalition with black officials was bloodily overthrown in a Nov. 1898 racial pogrom in this city on the Cape Fear River, inspiring Charles Chesnut's novel *The Marrow of Tradition*

Answer: Wilmington ✓

2. A 1929 strike at the Loray Mill in this town led to the shooting of the police chief, the murder of labor balladeer Ella May Wiggins, and a series of notorious trials.

Answer: Gastonia

3. Neo-Nazis & Klansmen attacked a Nov. 3, 1979 anti-Klan march of the Communist Workers Party in this city, killing 4 men & a woman. Nobody was convicted.

Answer: Greensboro ✓

3. Identify the Paraguayan dictator for the stated number of points.

1. For 5 points: Descended from German immigrants, this general seized power in 1954 & held it till a 1989 coup, making the country notorious for human rights violations

Answer: Alfredo Stroessner ✓

2. For 10 points: Son of his predecessor as dictator, he took over in 1862, attacked Uruguay & Brazil in 1864 and Argentina in 1865, & fought the War of the Triple Alliance until killed by Brazilian cavalry in 1870, costing Paraguay a third of its population.

Answer: Francisco Solano Lopez

3. This lawyer dominated Paraguay from his 1811 membership in a governing junta until his death as "El Supremo" in 1840, a period in which he sealed the country's borders & tried to make Guaraní the official language.

Answer: Jose Gaspar Rodriguez de Francia

4. Name the city 30-20-10

30. The Cathedral of St. Francis Assisi was built in this city by Archbishop John Lamy who was the model for the principal character in Willa Cather's *Death Comes for the Archbishop*.

20. The Palace of the Governor's was built in this city in 1610, and Lew Wallace lived in this building when he wrote *Ben Hur*.

10. In 1621, the oldest church in the U.S., the Mission of San Miguel, was built. The oldest house in the U.S. also stands in this city.

Answer: Santa Fe, New Mexico



5. Answer the following questions about quantum mechanics for 10 points each.  
a. This theorem is the quantum mechanical analog of Newton's 2<sup>nd</sup> Law. It states that the mass times the second derivative of the expectation value of position with respect to time is equal to the first derivative of the expectation value of momentum with respect to time.

Answer: Ehrenfest's Theorem

b. This approximation is used in quantum mechanical scattering theory. It states that to first order, the scattering amplitude is the 3-dimensional Fourier transform of the potential integrated over the difference in k-vector.

Answer: Born Approximation

c. This rule is derived from perturbation theory and states that the transition rate between two quantum states is proportional to their matrix element squared times the density of states integrated over energy. Ironically, it was derived by Dirac but is named after another famous physicist.

Answer: Fermi's Golden Rule

6. Several confusing questions have been written lately about the Fourth Amendment exclusionary rule. Their mistake was to state that the 1961 decision in *Mapp v. Ohio* created the exclusionary rule, rather than applying it to states as well as federal courts. First, FTP, name the justice, a former attorney general, who authored the *Mapp* majority decision.

Answer: Ramsey Clark

Now, FTP, name the 1914 Supreme Court decision that created the exclusionary rule for federal courts. Answer: Weeks v. U.S.

And, lest you quiz players think that these rulings mean that any police inspection requires a warrant, you should be aware of this 1968 decision, authored by Earl Warren, holding that evidence seized during a "stop-and-frisk" conducted by an officer with "reasonable and articulable suspicion" of danger is admissible.

Answer: Terry v. Ohio

7. Ralph Vaughan Williams was a prolific English composer, but he had help. For 10 points each, what authors' works provided the inspiration for these Vaughan Williams compositions?

1. Sea Symphony Answer: Walt Whitman

2. the song cycle *On Wenlock Edge* Answer: A.E. Housman ✓

3. the opera *Sir John in Love* Answer: William Shakespeare ✓

8. If I said "Wallace Warfield Simpson," you would respond "Edward VIII." For 5 points each, which King Edward of England had a "relationship" with the following people.

1. Piers Gaveston Answer: Edward II ✓

2. Edward Seymour, duke of Somerset Answer: Edward VI ✓

3. Elizabeth Woodville Answer: Edward IV ✓

4. William Wallace Answer: Edward I ✓

5. John Wycliffe Answer: Edward III ✓

9. Identify the artist responsible for each of the following seminal post-bop jazz albums for 5 points each & a 5-point bonus for all correct.

1. Saxophone Colossus Answer: Sonny Rollins ✓

2. Kind of Blue Answer: Miles Davis ✓

3. Free Jazz Answer: Ornette Coleman

4. Black Saint and the Sinner Lady Answer: Charles Mingus ✓

5. A Love Supreme Answer: John Coltrane ✓

10. An amazing number of mammal species unknown to Western science or thought extinct have been discovered or reappeared in Asia in the last 5 years, 3 in Vietnam, 2 in Tibet, & 1 in Pakistan. Identify 3 of them for 10 pts. each..

1. Discovered in that reserve in 1994, it's the largest of the primitive "barking deer".  
Answer: giant muntjac

2. These primitive equines were found in Tibet in 1995.

Answer: Riwoche horse (pronounced ree-woe-chay)

3. The Tibetan subspecies of this animal, the Eurasian equivalent of the wapiti, wasn't seen in the wild by Westerners from the 1940s until 1995.

Answer: Tibetan red deer

11. Here is a question about 15<sup>th</sup> century Flemish painters who aren't Jan van Eyck. Name them for 15 points each.

a) You will find this artist's tritych "Christ Appearing to His Mother" in the Met, and the Prado houses his "Descent from the Cross."

Answer: Rogier Van der Weyden

b) You will find his "Adoration of the Magi," in Berlin, and the Uffizi holds his "The Adoration of the Shepherds."

Answer: Hugo Van der Goes

12. Name the author 30-20-10

30. He began writing under the the pseudonym John Sinjon and the first mate of a ship on which he sailed in 1893 was Joseph Conrad.

20. His concern for society is evidenced in his two dozen plays which include "The Skin Game" and "Strife." Two of his novel trilogies are "A Modern Comedy" and "End of the Chapter."

10. His first and best-known trilogy is "The Forsyte Saga."

Answer: John Galsworthy

13. 30-20-10. Identify the explorer.

30: Born in 1729 and educated in Paris, at the age of 25 he wrote a paper on integral calculus that earned him membership in the Royal Society of London.

20: In the French and Indian War he was an aide de camp to General Montcalm and took part in the defense of Quebec and Ticonderoga. During the American Revolution he served with the Comte de Grasse and fought Admiral Hood at Martinique.

10: He is best remembered for a voyage he took from 1767 to 1769 in which he rediscovered the Solomon Islands, on his way to the first circumnavigation of the globe by a Frenchman.

Answer: Louis Antoine de Bougainville

14. After the questions about computer games at ACF Regionals and languages and operating systems at ACF Nationals, it seems like there's only one place left to go. Given the individual components of an office software suite package, name the package FTPE.

1. Word, Excel, Powerpoint, Scheduler, Access

Answer: Microsoft Office (also accept MS Office Professional or MS Office 95)

2. Wordperfect, Quattro Pro, Presentations

Answer: Corel Wordperfect Suite

3. Word Pro, Approach, Organizer, 1-2-3, Freelance Graphics

Answer: Lotus Smartsuite (accept Lotus Smartsuite 96 BUT DO NOT accept Lotus NotesSuite)

15. Identify the six classic Chinese novels, all available in English, by their English titles from a description for 10 pts. each.

1. Compiled in the 14<sup>th</sup> century, it tells of 3 friends who take the Peach Garden Oath to preserve the Han only to see the country break into three parts

Answer: Romance of the Three Kingdoms (also accept "Tale of" or equivalent)

2. Also an early Ming product, it features the hundred noble bandits of Liangshan who later work for the government. Pearl Buck's partial translation was called All Men are Brothers.

Answer: The Water Margin or Outlaws of the Marsh

3. This Proustian novel of 1792 centers on Bao Yu's doomed love for one cousin & marriage to another.

Answer: Dream of the Red Chamber or Story of a Stone

16. Any fool player, upon hearing a haiku, quickly buzzes in. For 10 points each, identify these other Japanese art forms.

1. Miniature sculptures which became popular during the Edo period, from 1615 to 1867.

Answer: Netsuke

2. The form of woodblock prints popular from the 18<sup>th</sup> century onward, whose masters included Hiroshige and Hokusai.

Answer: Ukiyo-e (or Floating World or Fleeting World)

3. The historical figure who is depicted in a statue known as a daibutsu.

Answer: Buddha (or Siddhartha Gautama)

17. Given a description, give the term from electrodynamics.

a. This equation states that  $\nabla^2 V = -4 \pi \rho$ , where  $V$  is the electric potential. If  $\rho$  equals zero, this formula reduces to Laplace's equation.

Answer: Poisson's Equation

b. This vector is proportional to the cross-product of the electric and magnetic fields. It gives the Power per unit area radiated by electromagnetic fields.

Answer: Poynting Vector

c. This formula gives the power radiated by an oscillating electric dipole. The power is proportional to the square of the acceleration.

Answer: Larmor Formula

18. Winds of change continue. Given the former Communist dictator of an Eastern European nation, name the nation's current president FTPE.

1. Nicolae Ceaucescu Answer: Ion Iliescu

2. Evner Hoxha Answer: Sali Berisha

3. Todor Zhivkov Answer: Zhelju Zhelev

19. These two names were given to the precious stones worn on the breastplate of the high priest of the Jews. The Hebrew translation of the names are "light" and "perfection." For 15 points each, name these stones, which were believed to confer the power to interpret the will of God to those that wore them.

Answers: Urim and Thummim

20. You probably know the great directors of the Soviet silent cinema, but what about the more recent ones? Identify the following from titles on a 15-10-5 basis.

1. For 15 points: The Mirror, Nostalgia

For 10 points: Solaris, Stalker

For 5 points: Andrei Rublev

Answer: Andrei Tarkovsky

2. For 15 points: Ashik Kerib, The Legend of Suram Fortress

For 10 points: Sayat Nova or The Color of Pomegranates

For 5 points: Shadows of Our Forgotten Ancestors

Answer: Sergei Parajanov (pronounced pa-ruh-JAH-nof)