

BERKELEY QUESTIONS by Gaius Stern (7), ___/___/95

1. By the peace of Wedmore in 878, England was divided between two zones, the Saxon kingdom of Alfred the Great and this Viking-controlled area. By the terms of Wedmore, almost all of England north of the Thames-Lea line went to Guthrun the Dane while Alfred kept the rest. FTP, what is the name of this Viking region in England, so named because Norse customs and legal practices predominated, while the South retained English customs.

\the DANELAW\

2. It is the locus of a point such that the square of the radius vector varies inversely as the vectorial angle. Its equation in polar coordinates is $r^2 = a/\theta$. The curve is asymptotic to the polar axis and winds around indefinitely close to the pole but never touches it. Only positive values of r are used in the figure, for negative values would give an identical branch of the curve in such a position that the two branches would be symmetrical to the pole. FTP, what is this plane curve shaped like a trumpet, from which it gets its name?

\LITUUS\

3. Surprisingly, this god was spurned by several nymphs and a mortal - Marpessa. Another mortal, Coronis, was unfaithful to him, for which he had her killed. He was far from ugly, but perhaps he had a reputation for loving them and leaving them -- at least Daphne wanted no part of him. FTP, who was this handsome, musical god of light and beauty who had many lovers, and fathered Aesculapeius and Orpheus?

\APOLLO\

4. This electrician and inventor came to the US in 1884 after inventing a telephone repeater. In the US, he invented a system of arc lighting (1886), a system of alternating current power transmissions (1888), and the coil or transformer which bears his name (1890). FTP, name this Croatian scientist who focused his attention on developing the system of telegraphy and telephony, and designing plant for transmission of power without wires.

\Nikola TESLA\

5. In Latin, the word can mean "unexpected guest, a pun on the shadow of an invited guest. During an eclipse, for the sun and the earth, it is the part of the shadow in the cone tangent to the earth and sun. FTP, what part of a shadow is this from which all direct light is excluded?

\UMBRA\

6. Currently the World Wrestling Federation is struggling to maintain itself in the sordid world of faking "competition." As of Jan. 1, 1996, he was the alleged WWF "champion." This member of a wrestling family has been tag-team champion with Jim the Anvil Neidhart and Inter-continental champion right before his first WWF Heavyweight championship. FTP, who is this "excellence of execution" who has weathered a "wrestling war" with his supposed brother, "The Rocket?"

\Bret "The Hit man" HARTE\

7. In this book, author Germaine Greer rejects the stereotype of femininity that has reduced women to passivity and dependence to contrast to men's aggressive competitiveness. Greer urges women to diminish this male-female polarization by exploring their sexuality and creative potential, perhaps through activities such as quizbowl (?). FTP, name this feminist treatise which criticizes gender based "castration."

THE FEMALE EUNUCH

8. It began as a uniform tariff established in 1819 to counter the peculiar multiple-tariff system predominant in central Europe. By 1829, Bavaria, Wrttemberg, and many smaller states had adopted it, and by 1844 all Germany except Hannover, Oldenberg, Mecklenberg, and the Hanse cities had adopted fallen in stride of this 19th century version of NAFTA. FTP, what was this Prussian-founded customs union which helped start the movement for Pan-Germanism with Prussia at the head?

\ZOLLVEREIN\

9. Dutch holdings in the New World ranged from Brazil to New York during the 16th and 17th centuries, but they were eventually driven from Brazil by the Portugese and from North America by the British. By the terms of the Treaty of Breda in 1667, the Dutch abandoned their claims to New Amsterdam in return for this colony which they held for three hundred more years. FTP, name this South American colony whose capital was Paramaribo and aside from Curacao, was one of the Netherlands' last colonies.

\SURINAM\

10. Obtained by incising the unripe capsules of *Papaver somniferum*, it is an air dried milky exudate. Its derivatives can be used in codeine, paperavine, and thebaine, owing to its analgesic effects. However, it is highly addictive and its production restricted by most nations. FTP, what drug is this, responsible for the narcotic effect of morphine?

\OPIUM\

11. Although during a raid on Washington DC, the British burned the White House during the War of 1812, this city has become as famous for an important historic incident a few days later. Francis Scott Key wrote the words to the Star Spangled Banner as he watched the British bombard Fort McHenry. But Fort Mc Henry does not protect Washington DC. FTP, what relatively near-by city does Fort McHenry protect?

\BALTIMORE\

12. This small Aegean island is rather insignificant in modern politics, but Thucydides says the other Greeks feared and hated the Athenians for massacring the local population during the Peloponessian War. Aside from this incident, the next most thing to come out of this island - or rather the waters surrounding it - was a statue of an armless goddess. FTP, what island restored Venus to the world?

\MELOS (Greek) or MILO (Anglocized)\

13. This town in Northern Spain has always been the symbolic center of Basque nationalism. Under an old oak tree, oaths were taken here to maintain Basque privileges until 1876 when the privileges were abolished. The city is better known from an event of Apr 28, 1937 recorded by Pablo Picasso. TPT, what is this town or the painting made in protest of its bombing?

\GUERNICA\

14. The value of this constant was derived by assuming that a mode at frequency ν (nu) can change its energy only by an amount of $\{N h \nu\}$ IT times frequency times N where N is an interger. This first constrains the oscillator absorbing or emitting the radiation to exist only in states of energy $E = N h \nu + K$, where K is a constant for a given oscillator. More important, it requires the radiation field to change its energy and hence frequency. FTP, what constant is this, in MKS units which is equal to 6.626×10^{-34} th power?

\PLANCK's CONSTANT\

15. This American Author was the nephew of a martyr of the American Revolution and named after the man who ran for Vice President with John Bell in 1860. Himself a philanthropist and chaplain of the US Senate from 1903-09, he was also something of a utopian, writing the satire, *"Sybaris and Other Homes"*. However he is most famous for the story of lieutenant Philip Nolan. FTP who wrote *"Man Without a Country"*?
\EDWARDEVERETT HALE (prompt for full answer)\

16. This nation borders Sierre Leone, Mali, and the Ivory Coast. The only French territory to reject the September 1958 referendum that established the French community, it turned to the Communists for global support. It has the potential to be wealthy since it has bauxite, aluminum, iron ore, diamonds and gold. However, the economy focuses on bananas and pineapples. FTP, what is this nation of the Fulani whose capital is Conakry?
\GUINEA\

17. His wish to become King of England never came about, despite his marriage to her Catholic majesty, Mary I because she merely granted him the title "Prince consort." He even considered contesting Elizabeth I's claim to the throne, but instead offered to marry her. After she declined, he later tried to launch one of the greatest invasions of England, but this too failed. Who, FTP, was this King of Spain whose Armada against England ended in total disaster?
\PHILIP II\

18. This Italian city state thrived due to a salt monopoly and the salt fish trade. Its head of state bore the title Duke of Dalmatia in recognition of the destruction of the local pirates around 1000. A republic, she was called the Mistress of the Sea. Her head of state, the Doge, was forbidden to go with his head uncovered. What city is this, FTP, best known for her artists such as Titian and for vuildings like St. Mark's?
\VENICE\

19. The probability function of x and y jointly, f of (x, y) is equal to f of (x) times f of (y) if, and only if, x and y are have this. For any number of variables, x (subscript 1) ... , x (subscript n), if the joint probability is the product of of the several probability functions, then the variables are all said to be this. For ten points, what is this term, sometimes prefixed by the word stochastic?
\INDEPENDENCE (accept Statistical INDEPENDENCE)\

20. In logic, the word "or" can serve this purpose. In a computing machine, a switch that transmits a signal if any one of several signals is received by the switch accomplishes the same purpose. The word is sometimes referred to nations, such as Poland immediately after WWII from the Russian point of view, to shield against aggression. FTP, what term can all of the above describe?
\BUFFER\