

Valencia Fall Invitational 2002

Round 4

Questions by Chris Borglum, with science help from Raj Dhuwalia

1) They were formulated primarily from Tycho Brahe's observations of Mars, and the third was generalized by Newton to apply to bodies of similar mass. The second holds that an orbit sweeps out equal areas in equal times, and the first says that the orbit is an ellipse with the sun at one focus. FTP, name this set of three laws named for a 17th-century German astronomer.

A: Kepler's Laws of Planetary Motion

2) The author said that this titular protagonist was based on Hitler. He lives on the "far-away Island of Sala-ma-Sond," where he is monarch. Still, he feels weak, and believes that, as king of all he surveys, if he can get higher up, he'll see more, and thus rule more. As he rises he becomes king of a cow, a mule, a bush and a cat. His plans, however, are stymied by the belch of Mack, who is at the bottom of the stack on which he sits. FTP this describes what reptilian title character of Dr. Seuss?

A. Yertle the Turtle

3) Western authorities agree that he is the author of two pseudonymous novels: The Fortified Castle and Zabibah and the King. He was sentenced to death in absentia after firing at Prime Minister Abdul Qassim in 1959, and after a short time in Syria he returned to join the Ba'ath party in 1963. Taking full power in 1979, FTP, this is what scourge of the Bushes and president of Iraq?

A. Saddam Hussein

4) The publication of this work earned its author the nickname "the Beast of Malmsbury," especially from those offended by his defense of religious freedom and attacks on the structure of the Church of England. The book argued that man's social life was a "war of all against all," and that a stable authoritarian government was needed to protect people. FTP name this work famous for its formulation of life as "nasty, solitary, brutish and short," written by Thomas Hobbes.

A. Leviathan

5) They included Orpheus, Meleager, Atalanta, Castor and Pollux, among others. Heracles was a member also, but he disembarked at Lemnos to find his squire Hylas and was left behind. Their destination was Colchis, where they intended to help their leader retrieve the Golden Fleece. FTP what was this group of heroes assembled by Jason?

A. Argonauts

6) Occurring widely in animal tissues, it is a constituent of blood plasma lipoproteins and of the complexes that form cell membranes. It is also a precursor of some steroids, like the bile acids and sex hormones. FTP name this waxy substance, of which the low-density version can greatly increase your chance of heart disease.

A. cholesterol

7) Standing about five meters high for most of its length, some of its original sections were built from

turf. Beginning at Wallsend-on-Tyne and running west, on its south side is the Vallum, a deep ditch used to control access to its milecastles and parapets. Meant to keep out the northern barbarians, and later the Picts and Scots, FTP this is what famous barrier in England built at the order of a Roman emperor?

A. Hadrian's Wall

8) Eddie Mathews was the first victim, injuring his hand in 1954, one week after his appearance. Vinny Testaverde was hurt in a motor-scooter accident six days following his appearance in 1986. More recently, Eric Crouch's undefeated Nebraska team was crushed just a day after the magazine touted him as the Heisman favorite. FTP these were all victims of what magazine's supposed cover jinx?

A. Sports Illustrated (acc. any other words with "SI")

9) Seven small human figures, mostly in black, stand before a body of water on which the shadows of buildings can be seen. The upper half of the canvas is dominated by a blue sky mostly obscured by clouds. At the right a large, mastless ship is docked in front of the title city. Painted in 1660, FTP, this describes what famous painting of the home of the artist Jan Vermeer?

A. View of Delft

10) Upon reaching its summit in 1893, Katherine Lee Bates was so inspired by the view that she penned "America the Beautiful." Discovered by its namesake in 1806, his prediction that it would never be climbed was proved wrong just 14 years later. FTP name this mountain in Colorado named for a young lieutenant named Zebulon.

A. Pike's Peak

11) Some of his famous short stories include *The Jolly Corner* and *The Real Thing*, which indicate two of his favorite short subjects: ghost stories and artist stories. *The Beast in the Jungle* combines both. Better known for novels like *Roderick Hudson* and *The Golden Bowl*, FTP who is this author of *The Turn of the Screw* and *The Wings of a Dove*?

A. Henry James

12) This agreement was necessitated by first by the taking of Mobile by American forces in 1813 and later by Andrew Jackson's seizure of Pensacola while chasing Seminole warriors. It set the western boundary of the Louisiana Purchase at the Sabine River and ended Spanish claims to the Oregon Territory. FTP, what is this 1819 treaty that most importantly gave Florida to the U.S.?

A. Adams-Onís (o-NEECE) Treaty

13) For ten yummy math points, evaluate the log base 2 of 32 minus log base 2 of 8.

A. 2

14) Of the five, the heaviest is a highly unstable element whose longest-lived isotope lasts for 8 hours, while the lightest forms a weak acid with hydrogen. The third-heaviest is a red liquid at room temperature, and three members of the group form strong acids with hydrogen. FTP, named from the Greek for "salt-formers," what is this group of five nonmetals in Group 7A of the periodic table, the most abundant of which is chlorine?

Answer: halogens (accept early "Group 7A" or "Group 17")

15) This poem's speaker says the title maiden "lived with no other thought/Than to love and be loved by me." However, their love was so strong that the angels in heaven were jealous and sent a "wind . . . out of a cloud . . . chilling and killing" his beloved. Now she rests in a "sepulcher there by

the sea.” FTP what is this poem set “many and many a year ago,/In a kingdom by the sea” by Edgar Allan Poe?

A. “Annabel Lee”

16) Based on a French comedy called *Le Reveillon*, this three-act operetta focuses on the wealthy Austrian Gabriel von Eisenstein. The main action focuses on a grand ball given by the Russian Prince Orlofsky, and long story short, Dr. Falke gets his gentle revenge on Eisenstein, at whom he was angry because Eisenstein made Falke walk through town wearing a carnival costume with an animal mask, from which the title comes. FTP name this Johann Strauss work whose name in English is “The Bat.”

A. Die Fledermaus

17) The unrest began in the northern Shandong province, where a drought had created starvation. Men in the province began practicing martial arts together, and soon believed they were impervious to bullets. Originally angry at Ch’ing rule, the Dowager Empress managed to turn their wrath toward foreigners, and a number of missionaries and businessmen were killed. This describes the beginning of, FTP, what Chinese uprising of 1901?

A. Boxer Rebellion

18) Discovered in 1972, it is orbited by a blue supergiant that is 15 times larger than our sun. That supergiant has a revolutionary period of 5.6 days around this dark object, indicating that it is probably 8-10 solar masses, much too large to be a neutron star, so most astronomers assume it is a black hole. FTP name this x-ray emitting object found in Cygnus.

A. Cygnus X-1

19) This land lies on the eastern side of Belegaer, a great sea, and its farthest northern reach is simply called the Northern Waste, while its most southerly area is called Haradwaith. It is bifurcated by the Misty Mountains, which separate the regions of Eriador and Gondor from Rhovanion and Rhun. Also including areas like Rivendell and Mordor, FTP name this fictional land of elves, orcs, and hobbits created by J.R.R. Tolkien.

A. Middle Earth

20) Descended from a long line of rabbis, he turned his back on religion early and in the 1890s published the influential *Rules of Sociological Method*. That work was among the first to use statistical data to analyze society, a method he replicated in his famous research into the reasons for self destruction. FTP name this French-born author of *Suicide* and coiner of the term “anomie.”

A. Emile Durkheim

VFI Round 4–Boni

1) Okay, captain—you’ve had three rounds to get to know your teammates, so now you have to pick one player to answer each of the following four questions based on a category; you must select yourself for one. They’re five points each, and if you get them all, I’ll give you a ten-point bonus.

But **you** have to pick—the rest of you players keep quiet. [Reader: read the category and give the captain a second to pick someone; then read the question to that player.]

A. (American History) What treaty ended the Mexican-American War in 1848?

A. Guadalupe Hidalgo

B. (English Literature) What Scottish novelist wrote *Rob Roy* and *Ivanhoe*?

A. Sir Walter Scott

C. (Anatomy) What name is given to the snail-shaped organ in the human ear, divided into two canals and the organ of Corti?

A. cochlea

D. (Mannerist Painting) What famous El Greco work depicts a funeral attended by human mourners while a heavenly host watches from above?

A. The Burial of Count Orgaz (acc. “funeral” for burial)

2) Provide these terms from feudal times FTPE.

A. This was a grant of land or other goods to a person of inferior rank from a lord or master.

A. fief

B. This term designates the receiver of a fief, that is, one who was subservient to a lord and lived on his land.

A. vassal

C. This term refers to the system of inheritance by which the oldest son, usually of a noble, took over the land and title of his father upon the latter’s death.

A. primogeniture

3) Identify the Shakespeare plays from which the following everyday expressions come FTPE.

A. “the primrose path”; “hoist by his own petard”

A. Hamlet

B. “it was Greek to me”; “a lean and hungry look”

A. Julius Caesar

C. “pomp and circumstance”; “the green-eyed monster”

A. Othello

4) I’ll name some nations, and you tell me what one country borders them all FTPE; if you need that country’s capital, you’ll get five.

A. (10 pts.) Poland, Ukraine, Hungary, Austria, Czech Republic

(5 pts.) Bratislava

A. Slovakia

B. (10 pts.) Turkey, Iraq, Jordan

(5 pts.) Damascus

A. Syria

C. (10 pts.) Brazil, Argentina

(5 pts.) Montevideo

A. Uruguay

5) Identify these thermodynamic things, FTP each.

A. Defined by $H = E + PV$, the change in this quantity equals heat absorbed by the system at constant pressure.

Answer: enthalpy

B. Labeled G, it equals $H - TS$, and its sign can indicate the spontaneity of a reaction.

Answer: Gibbs free energy

C. For an equation obtained by adding several chemical equations, this law says that the total

enthalpy change equals the sum of enthalpy changes for each equation.

Answer: Hess's Law

6) Answer the following about Hinduism FTPE.

A. These earliest Hindu writings can be divided into the Atharva, Sama, Yajur and Rig.

A. Vedas

B. This term designates an incarnation of a god, such as Vishnu's appearance as Krishna or Buddha.

A. avatar

C. This is the ultimate goal of all Hindus, a state of release from samsara in which a person is at one with god.

A. nirvana

7) Supreme Court cases FTPE.

A. This 1896 case validated a Louisiana railroad policy providing "separate but equal" facilities for blacks and whites.

A. Plessy v. Ferguson

B. This 1919 decision used the criterion of "clear and present danger" to determine whether a man's right to speak against a war during wartime was constitutional.

A. Schenk v. U.S.

C. This 1944 case defended the government's internment of Japanese-Americans during WWII.

A. Korematsu v. U.S.

8) Name the member of the Russian Five who composed the following 5-10-15

A. (5 pts.) "Night on Bald Mountain"

A. Modest Mussorgsky

B. (10 pts.) "Scheherazade"

A. Nikolai Rimsky-Korsakov

C. (15 pts.) "In the Steppes of Central Asia"

A. Aleksandr Borodin

9) Name these elements with notable radioisotopes, for 15 points each:

A. Its 125 and 131 isotopes have been used in thyroid scans, since the element tends to collect in the thyroid.

Answer: iodine

B. Its 90 isotope is a medical tracer, but it is also a long-lived fission product that mimics calcium and collects in teeth and bones.

Answer: strontium

10) Name these Latin American novelists from works FTPE.

A. Love in the Time of Cholera; The General in His Labyrinth

A. Gabriel Garcia-Marquez (do NOT prompt on just "Marquez")

B. The House of Spirits; The Infinite Plan

A. Isabel Allende

C. The Old Gringo; The Death of Artemio Cruz

A. Carlos Fuentes

11) Answer the following about that wacky nut, Adam Smith FTPE.

A. Smith was much influenced by this fellow Scot and philosopher's book *A Treatise on Human Nature*.

A. David Hume

B. In *Wealth of Nations*, Smith used this metaphor to describe the unknown force which drives men to work for their own gain, resulting in betterment to society.

A. invisible hand

C. Smith discusses division of labor for efficiency by giving a hypothetical example of the manufacture of this "trifling" item.

A. pins

12) Certain years you just ought to know. Give the exact year of the following major historical events FFPE and a bonus five for getting them all.

A. Norman conquest of England A. 1066

B. Year of revolutions in Europe A. 1848

C. May student riots in France A. 1968

D. Signing of Versailles Treaty A. 1918

E. Soviets invade Hungary A. 1956

13) Identify the visible structure in which you'd find the following bones; for example, if I said phalanges, you'd say "fingers." FTPE:

A. hyoid process A. neck

B. incus A. (middle) ear

C. humerus A. (upper) arm

14) Provide the -ism with which the following writers are most closely associated FTPE.

A. Andre Breton; Paul Eluard

A. Surrealism

B. Stephan Mallarme; Arthur Rimbaud (ram-bo)

A. Symbolism

C. Margaret Fuller; Henry David Thoreau

A. Transcendentalism

15) ID these classic black and white films FTPE.

A. This classic 1939 western directed by John Ford starred John Wayne as the Ringo Kid.

A. Stagecoach

B. Starring Rod Steiger and Marlon Brando, it features Brando's famous "I coulda been a contendah" speech.

A. On the Waterfront

C. In this 1951 classic starring William Holden and Gloria Swanson, Joe is a kept man who narrates the movie even though he's dead.

A. Sunset Boulevard

16) Answer the following about John Brown FTPE.

A. Brown and his sons killed five pro-slavery settlers in Kansas in this massacre named for a nearby creek.

A. Pottawatomie

B. In 1859 Brown led a raid on the federal arsenal at this site in Virginia.

A. Harper's Ferry

C. Brown was captured at Harper's Ferry by federal troops led by this general.

A. Robert E. Lee

17) Identify the god or creature that will slay the following gods at Ragnarok FTPE.

A. Odin A. Fenrir (acc. Fenris Wolf)

B. Tyr A. Garm

C. Thor A. Midgard Serpent

18) 30-20-10 Name the novel from characters.

A. (30 pts.) Wolfsheim; Catherine Wilson

B. (20 pts.) Jordan Baker; Myrtle Wilson

C. (10 pts.) Nick Carraway; Daisy Buchanan

A. The Great Gatsby

19) 30-20-10 Name the element.

A. (30 pts.) This alkali metal can be synthesized from the ore spodumene, but any lab synthesis requires an electrolytic step as it is difficult to add an electron to the poorly electronegative ion of this element.

B. (20 pts.) This metal has only one valence electron.

C. (10 pts.) A derivative of this element, number three, is used to treat mental illness.

A. lithium

20) Answer the following about great floods in various mythos for fifteen points each.

A. This son of Prometheus was the only person spared in the great flood of Greek myth.

A. Deucalion

B. This immortal Babylonian was also allowed to survive a great flood; he was later visited by Gilgamesh, whom he directed to the plant that gave immortality.

A. Utnapishtim