1999 Terrapin Invitational Tournament Questions by Who Wants to Be a Dinosaur (Swisdak, Starsinic, LaSala) TOSSUPS

T1. Founded by convict Donald DeFreeze and feminist Patricia Soltysik, their first act was assassinating Oakland School Superintendent Marcus Foster. After an April 1974 bank robbery, DeFreeze, Soltysik, and four others died in a shootout at their Watts hideout. Fifteen months later, William Harris, Emily Harris, and "Tania" returned to the Bay Area, but were captured on September 18, 1975, thus ending an "army" that never numbered over 40. FTP, what "urban revolutionary" group was famous for their indoctrination of Patricia Hearst?

Answer: _SYMBIONESE LIBERATION ARMY_ or _SLA_

T2. The green and red parts come from forbidden transitions of atomic oxygen while blue arises from molecular nitrogen, all at altitudes near 100 kilometers. They are caused by fast electrons following the Earth's magnetic field and impacting the ionosphere at high latitudes. FTP, what phenomenon produces sheets of color in polar skies?

Answer: _AURORA_ (Accept _AURORA BOREALIS_ or _AURORA AUSTRALIS_ or _NORTHERN (SOUTHERN) LIGHTS_)

T3. The daughter of Kane Milohai and Haumea, she lost her home and sailed northward with some of her siblings. To claim a new home, she defeated Aila'au, a god called the forest-eater. As a warning to her followers a small white dog is said to be seen before the tantrums of, FTP, what inhabitant of the Kilauea volcano on Hawaii and Polynesian goddess of fire?

Answer: _PELE_

T4. _The Amateurs_ profiles Olympic rowers while _The Making of a Quagmire_ describes the Vietnam escalation on which he reported. The auto industry was scrutinized in _The Reckoning_ while _The Powers That Be_ examined the American press. FTP, what author is best known for his study of decision-making, The Best and The Brightest?

Answer: David HALBERSTAM

T5. Completed by 1450 but not installed in the Piazza del Santo before the Basilica of Sant'Antonio in Padua until 1453, its subject was Erasmo de Narni. Inspiration for the work came from Rome's statue of Marcus Aurelius and St. Marks' Greek horses. FTP, name this bronze prototype of Western equestrian statues, sculpted by Donatello.

Answer: GATTAMELATA

T6. The Hohenzollern family renounced interest in the Spanish throne, but Napoleon III wanted to humiliate the Germans. He sent Benedetti to see Wilhelm and demand that the Hohenzollerns would not renew their candidacy. Wilhelm refused, sending his notes to Bismarck who re-edited them to form, FTP, what document that inflamed France and began the Franco-Prussian War?

Answer: EMS dispatch

T7. In the _Poetics_, Aristotle praises it as the tragic paradigm of anagnorisis and perpeteia --- recognition and reversal. A messenger and shepherd reveal that Polybus adopted the protagonist and hence, as the oracle said, he has killed Laius and married Jocasta, his father and mother. FTP, what Sophoclean play ends with a man putting out his own eyes.

Answer: OEDIPUS REX or OEDIPUS TYRANNUS

T8. It's the partial derivative of energy with respect to entropy at constant volume and number. Radiation energy density goes as its fourth power, while in a gas it's proportional to a particle's average kinetic energy. FTP, what quantity, usually paired in formulae with Boltzmann's constant, is measured on the Kelvin scale?

Answer: _TEMPERATURE_

T9. While mostly desert, the Sahel and the Senegal River valley occupy this country's south. Most of the people are Islamic, speak the Hasaniya dialect of Arabic, and are of Arab and Berber descent. A 1979 treaty with the Polisario Front relinquished any claim to the Western Sahara by, FTP, what country, bordered by Senegal, Mali and Algeria, with its capital at Nouakchott?

Answer: _MAURITANIA_

T10. Wounded at Antietam, his Civil War experience was a political asset. As Chairman of the House Ways and Means Committee he supported high tariffs including an eponymous one in 1890. Later in his career he presided over passage of the Dingley tariff and fulfilled a campaign promise by committing the U.S. to the gold standard in 1897. FTP, what U.S. President died in Buffalo in 1901?

Answer: William MCKINLEY_

T11. A 1994 work began as a letter to her comatose daughter Paula; her first novel as a message to an ill grandfather. In it she tells of the Trueba family headed by the clairvoyant Clara, their magic realism-infused lives, and their title residence. FTP, name the author of _The House of the Spirits_ and niece of a Chilean leader killed in a 1973 coup.

Answer: _ISABEL ALLENDE_ (Note: The first work is _Paula_)

T12. His analysis of American Northwest Indians in _The Way of the Masks_ tries to reduce cultures to the relationships between their elements. Field research in Brazil led him to this structuralist approach and inspired such books as _The Naked Man_ and 1968's _The Origin of Table Manners_. FTP name this Frenchman, author of _The Raw and the Cooked_.

Answer: Claude LEVI-STRAUSS

T13. Married at 20 to the writer and critic Henri Gauthier-Villars, her first four novels were published under his pseudonym. Divorcing him in 1906, she became a music-hall performer and wrote "La Vagabonde" and "L'Envers du music-hall". FTP, name this French author, whose other works include "The Cat", "Cheri", "Claudine at School", and "Gigi".

Answer: (Sidonie-Gabrielle) _COLETTE_

T14. Its three parts concern God, man's moral life, and Christ; the first includes a fivefold proof of God's existence while the second describes the seven virtues and deadly sins. Each argument advances a synthesis of Christianity and Aristotelian principles in, FTP, what work that lay unfinished in 1274 at the death of Thomas Aquinas?

Answer: _SUMMA THEOLOGICA_ or _SUMMA THEOLOGIAE_

T15. Made principally by the oxidation of methanol it is used on cotton fabrics and in particleboard and can give both a distinctive odor. The basis for polymers such as Bakelite and Formica, its chemical formula is HCHO. FTP, what chemical, which in aqueous solution was widely used as an embalming agent, is the simplest aldehyde?

Answer: FORMALDEHYDE (accept METHANAL)

T16. Usually said to number six or seven, that figure does not include Hemlock, Conesus, or Honeoye. Formed by ice sheets expanding southward along preexisting stream valleys, the Iroquois believe the hand of the Great Spirit slipped during their formation. Canandaigua, Otisco, Cayuga, and Seneca are, FTP, part of what group of lakes of west-central New York state?

Answer: FINGER Lakes

T17. His father Sin-muballit also fought against Larsa whose leader, Rim-Sin, was his chief rival. The best known ruler of the Amorite dynasty, he ascended in 1792 BC. But, his chief claim to fame was inscribed on a stela in the temple of Marduk in Babylon. FTP, who dictated the 282 decisions forming the most complete known set of Babylonian laws?

Answer: HAMMURABI or HAMMURAPI

T18. In Islam it requires 3 turns around the chaplet, with the 99 markers each representing one of the Koran's "most beautiful names of Allah." In Christianity, its feast day is the anniversary of the victory at Lepanto. Saint Dominic may have created the most popular version of, FTP, what cycle that can include 5 sets of 10 Hail Mary's, an Our Father, and a Gloria Patri?

Answer: ROSARY

T19. There are two types, apposition and superposition. In the first, each of the rectangular or hexagonal ommatidia is separated by pigmented cells. In the latter, found in noctumal arthropods, pigment migrates within the iris cells depending upon external light levels. FTP, what structure is responsible for insect vision?

Answer: COMPOUND EYE

T20. This instrument has notable solos in the _William Tell Overture_ and the Scherzo of _A Midsummer Night's Dream_. It plays the title role in Stravinsky's _Firebird_ and has the opening passage in _Prelude to the Afternoon of a Faun_. FTP, what instrument, the bird in _Peter and the Wolf_, is played by Jean-Pierre Rampal and James Galway?

Answer: _FLUTE

T21. He was worried when his twin, Proetus, seduced his daughter as an oracle had warned his grandson would kill him. So, he locked her in a prison of brazen doors, where Zeus promptly visited as a shower of gold. Set adrift in a chest, the child and Danae were rescued and the prophecy later fulfilled. FTP, name this king of Argos, and hard-luck grandfather of Perseus.

Answer: _ACRISIUS_

T22. An early disciple, he was opposed by the Synagogue of the Freedmen, and was dragged before the Sanhedrin. Under questioning, he stated "Look, I see heaven open and the Son of Man standing at the right hand of God." This enraged the Sanhedrin, who had him stoned. FTP, name this early Christian martyr, whose death was witnessed by Saul.

Answer: _STEPHEN_

T23. Hixon professor of Psychobiology at Caltech from 1954 to 1984, he first gained fame studying nerve regeneration. Later, by examining epileptics with severed corpus callosums he deduced that the cerebral hemispheres had specialized functions. FTP, name this neuroscientist who shared, with David Hubel and Torsten Wiesel, a Nobel Prize in 1981.

Answer: Roger SPERRY

T24. It's the tale of two men who seek adventure in Mexico. While there, they find an American named Blevins, who kills a Mexican and eventually all three are imprisoned. One of the boys, Rawlins, finally goes home, while the other, John Grady Cole, stays to win back the hand of his lover, Alejandra. FTP, this describes what Cormac McCarthy novel, the first of the Border Trilogy?

Answer: _ALL THE PRETTY HORSES

T25. This element is 22nd in natural abundance among elements in crustal rock. The minerals pentlandite and pyrrhotite are the principal ores of this element. It is usually found with impurities, including copper which is removed by the Mond process. FTP, name this element, which was isolated in 1751, and has the atomic number of 28.

Answer: _NICKEL_

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BONUSES (All worth 30 points)

- B1. With the release of Edmund Morris' book _Dutch_, there has been more interest in the life of Ronald Reagan. Answer the following questions about the former President's life FTP each.
- 1. Morris dedicates his book to this Reagan daughter, who lived only for a day.

Answer: _CHRISTINE_

2. It is seldom remembered that Reagan was the only trade union leader to become President. Name the union that he headed.

Answer: _SCREEN ACTORS' GUILD_or_SAG_

3. Name Reagan's first wife, who won an Oscar in 1948 for her role in Johnny Belinda .

Answer: Jane _WYMAN_

B2. Note these classes of subatomic particles (READ SLOWLY): baryons, bosons, fermions, hadrons, leptons, mesons. Given a particle, you'll earn 10 for naming _every_ class to which it belongs, or 5 for _any_ class. For each part specify whether you are naming _any_ or _all__classes.

1. proton

Answer: BARYON, FERMION, HADRON

2. photon

Answer: BOSON

electron

Answer: LEPTON, FERMION

(Note: The scoring for part 2 may depend on whether the team specifies _any_ or _all_.)

- B3. Answer the following questions about the ancient culture of the American Southwest FTP each.
- 1. The center of Anasazi culture between roughly 900 and 1150 AD, this area in northwestern New Mexico contains the 5-story buildings of Pueblo Bonito and the observatory known as the Sun Dagger.

Answer: _CHACO CANYON

2. The most famous of the Anasazi ruins, this cluster of "cliff dwellings" in southwestern Colorado were discovered in the 1880's and became a national park in 1906.

Answer: MESA VERDE (prompt on CLIFF PALACE)

- 3. Featured at Pueblo Bonito, these underground chambers are used today by the Pueblo for religious ceremonies. It is a usually circular structure with a timbered roof and a sipapu, an opening in the floor symbolizing the entrance to the underworld.
 Answer: KIVA
- B4. Identify these figures in the world of dance, FTP each.
- 1. The first black dancer to headline on white vaudeville circuits, he costarred with Shirley Temple in "Rebecca of Sunnybrook Farm" and starred in 1943's "Stormy Weather". In 1989, his birthday was named National Tap Dancing Day.

Answer: Bill "Bojangles" ROBINSON_

The niece of a film director, she choreographed the 1942 ballet "Rodeo", and the musicals "Oklahoma!", "Carousel", "Brigadoon", and "Gentlemen Prefer Blondes".

Answer: A gnes DE MILLE

3. He formed his American Dance Theatre in 1958. His signature pieces include "Phases"; "Revelations", set to African-American spirituals; and "Pas de Duke", a tribute to Duke Ellington.

Answer: Alvin _AILEY_

- B5. Answer the following related biology questions for the stated number of points.
- 1. Synthesized from tryptophan in the pineal gland, high levels of this neurotransmitter may cause migraines while insufficiencies are linked to depression. Name it FTP.

Answer: _SEROTONIN_

2. This drug, also known as fluoxetine, is perhaps the most famous of the selective serotonin reuptake inhibitors. Name it for 5 points.

Answer: PROZAC

3. This pineal hormone is a serotonin derivative. Known to blanch amphibian skin, in mammals it probably regulates sleep cycles and sexual maturation. Name it for 15 points.

Answer: MELATONIN

B6. Identify the following poems from a famous line for the stated number of points.

1. FTP: "Higher still and higher/ From the earth thou springest/ Like a cloud of fire; / The blue deep thou wingest, / And singing still dost soar, and soaring ever singest."

Answer: _TO A SKYLARK_
2. FTP, "The trumpet of a prophecy! O Wind, / If Winter comes, can Spring be far behind?"

Answer: ODE TO THE WEST WIND

3. For 5 points: "I met a traveler from an antique land / Who said: Two vast and trunkless legs of stone / Stand in the desert ..." Answer: OZYMANDIUS

4. For a final 5, who wrote To a Skylark, Ode to the West Wind, and Ozymandius?

Answer: PERCY Bysshe SHELLEY

B7. Answer the following questions about the U.S. annexation of California for the stated number of points.

1. This future Presidential candidate played an important role in the annexation by establishing the "Bear Flag Republic." Name him for 5 points.

Answer: John C. FREMONT_

2. This U.S. Army general marched from Fort Leavenworth through Santa Fe, and into California to join Fremont and the Navy's Robert Stockton in taking California from the Mexicans. Name him FTP.

Answer: Stephen W. KEARNEY

3. Accidentally thinking that the U.S. was at war with Mexico, this Navy officer stormed Monterey in 1842. Name him for 15 points. Answer: Thomas ap Catesby _JONES_

B8. Identify the patriotic song given a line from a rarely-sung verse, FTP each.

1. "Their blood has washed out their foul footsteps' pollution."

Answer: The STAR SPANGLED BANNER

2. "O beautiful for pilgrim feet / Whose stern impassion'd stress"

Answer: _AMERICA THE BEAUTIFUL _ (do not accept _AMERICA _)

"Let rocks their silence break, / The sound prolong."

Answer: AMERICA or MY COUNTRY TIS OF THEE

B9. Given a list of characters from a Dickens work, give the novel FTP each.

1. Mr. Lorry, Ms. Pross, Mr. Stryver

Answer: A TALE OF TWO CITIES

Bentley Drummle, Mr. Pumblechook, Mr. Wemmick

Answer: GREAT EXPECTATIONS

3. Ms. Jellyby, Mrs. Pardiggle, Mr. Guppy

Answer: BLEAK HOUSE_

B10. Given a pair of world capitals, identify the general direction (north, south, east or west) one would have to go to get from the first to the second, for five points each.

1. Buenos Aires to Montevideo Answer: EAST 2. Tallinn to Riga Answer: SOUTH 3. Tbilisi to Yerevan Answer: _SOUTH_ 4. Islamabad to Kabul Answer: WEST_ 5. Monrovia to Accra Answer: EAST 6. Suva to Funafuti Answer: NORTH

B11. Identify the following related things from mathematics FTP each.

1. This integral transform converts between time and frequency representations of a function.

Answer: FOURIER transform

For discrete Fourier transforms of N data points, this algorithm cuts the number of required multiplications from N squared to N times log of N.

Answer: FAST Fourier transform or FFT

3. The Fourier transform of this function is a non-zero constant, implying that it has equal power at all frequencies.

Answer: Dirac DELTA function

B12. Identify the following three related characters from Greek myth for the stated number of points.

1. This son of Hermes and Chione was renowned for his skills as a thief. He taught wrestling to Heracles, and a character of the same name appears in Shakespeare's "A Winter's Tale." Name him FTP.

Answer: _AUTOLYCUS_

2. Book X of the Iliad shows him wearing the helmet of Eleon which his grandfather Autolycus had stolen. His thieving skills were on display in the capture of the Palladium. Name him for 5 points.

Answer: ODYSSEUS

3. For 15 points, name Odysseus' mother, the daughter of Autolycus.

Answer: _ANTICLEIA_

- B13. The directors make the movies, the actors and actresses star in them, but it's the sound tracks we always remember. Given a list of movies, give the soundtrack composer for the stated number of points.
- 1. For 5 points: _Far and Away_, _Nixon_, and _Superman_

Answer: John WILLIAMS

2. FTP: _Patriot Games_, _Titanic_, _Braveheart_

Answer: James HORNER

3. For 15 points: _North by Northwest_, _Psycho_, _Taxi Driver_

Answer: Bernard HERRMANN

- B14. Identify the following Napoleonic generals FTP each.
- Assisting Napoleon at Austerlitz and Borodino, he was rewarded with marriage to Napoleon's sister and the Kingdom of Naples.
 He died trying to reclaim Naples after the Hundred Days.

Answer: Joachim MURAT

Named, with Murat, a marshal of France, he fought at Austerlitz and in Spain against Wellington. Created Prince of Moscow after Borodino, he was called "bravest of the brave" for his rear guard action on the retreat. After Waterloo he was tried and executed for treason.

Answer: Michel NEY

3. The hero of the victory at Valmy, he invaded the Netherlands in 1793, but lost battles at Neerwinden and Louvain and defected to the Austrians.

Answer: Charles DUMOURIEZ

- B15. Answer the following questions about Don Quixote for the stated number of points.
- 1. For 5 points, what name does Quixote give to the country woman who becomes his fair maiden?

Answer: DULCINEA del Toboso

2. FTP, give either of the real names of the woman Quixote christens Dulcinea.

Answer: _ALDONZA_ or _LORENZO_ (Accept _LORENZA_)

For 15 points, Quixote's death is hastened by his defeat at the hands of this knight who requires that he remain in his home village for one year.

Answer: Knight of the _WHITE MOON_ (Accept Samson _CARRASCO_)

B16. Given works of art, give the artist FTP. If you need an easier clue, you get five points.

1. 10 points--_View of the Luxembourg Gardens_, The Death of Socrates_

5 points-- The Oath of the Horatii

Answer: Jacques Louis DAVID

2. 10 points-- Mrs. Thomas Boylston_, Paul Revere_

5 points-- Watson and the Shark

Answer: John Singleton COPLEY

10 points--_The Madman_, _Mounted Officer of the Imperial Guard_

5 points--_The Raft of the "Medusa"_

Answer: Theodore _GERICAULT_

B17. Answer these chemistry questions for the stated number of points.

1. For 5 points, this quantity is loosely defined as the negative base ten logarithm of the hydronium ion concentration.

Answer: PH

2. FTP, what is the pH of a 0.010 molar solution of hydrochloric acid?

Answer: $_2$ [pH = $-\log(0.010)$]

3. For 15 points, what is the pH of a 0.10 molar solution of an acid with K sub a equal to 10 to the negative eleventh?

Answer: $_{6}[pH = -log(K_a*0.1)]$

B18. Identify the following about hurricanes for the stated number of points.

1. In the North Atlantic tropical cyclones are called hurricanes. For 5 points, what name is given to the same storms in the northwest Pacific?

Answer: TYPHOON

2. For 5 points, air drawn in by the storm's eye is deflected by this effect due to the Earth's rotation and forms the ubiquitous spiral structure.

Answer: _CORIOLIS_ effect

3. Perhaps caused by moist convection, this ring of thunderstorms surrounding a hurricane's center is the site of the strongest surface winds. Name it FTP.

Answer: _EYEWALL_ (do not accept _EYE_)

4. Hurricanes produce vertical displacements in this ocean boundary layer where temperature rapidly decreases with increasing depth. FTP, name it.

Answer: THERMOCLINE

B19. Four of Eugene O'Neill's plays won Pulitzer Prizes. In this bonus you can either name any three of those plays for 5 points each and a maximum of 15 or try to identify three of his non-Pulitzer-worthy works from a brief description for 10 points each and a maximum of 30. Choose now.

First version (15 pts maximum):

Answer: _BEYOND THE HORIZON_, _ANNA CHRISTIE_, _STRANGE INTERLUDE_, _LONG DAY'S JOURNEY INTO NIGHT_

Second version:

1. The salesman Hickey arrives at Harry Hope's bar as a convert to the righteousness of truth-telling. Hilarity does not ensue.

Answer: _THE ICEMAN COMETH

Set in Connecticut on the Fourth of July, it features 17-year old Richard Miller as he first rebels from his family and then returns to a happy ending within its middle-class ideal.

Answer: AH! WILDERNESS

3. In it O'Neill contrasts Western materialism and Eastern abstraction during the Polo's travels to and within the court of Kublai Khan. Answer: _MARCO MILLIONS_

B20. Answer the following questions about the Henry James' The Turn of the Screw for the stated number of points.

1. For five points each, name the two children assigned to the governess.

Answer: MILES and FLORA

2. For five points each, name the two ghosts that are haunting Miles and Flora.

Answer: Ms. JESSEL and Peter QUINT

3. FTP, name the other servant at the house who witnesses the events in the book.

Answer: Mrs. GROSE

B21. For the stated number of points, identify the authors of the following classic works - classics of mathematics, that is.

1. For 5 points, Elements, circa 300 B.C.

Answer: _EUCLID_

2. For 5 points, Arithmetica, 3rd century AD

Answer: DIOPHANTUS

3. FTP, On the Sphere and Cylinder, 3rd century BC

Answer: ARCHIMEDES

4. FTP, _Al-jabr wa'l muqabalah_, 830 AD

Answer: Mohammad ibn Musa al- KHWARIZMI

B22. Answer the following questions about Revolutionary War battles fought in New Jersey for the stated number of points.

1. For 5 points, Washington attacked the Hessians at this New Jersey town on Christmas night, 1776.

Answer: _TRENTON_

2. After Trenton, Washington hit the British situated around, FTP, this Ivy League college.

Answer: _PRINCETON_

3. In June 1778, Washington attacked the British army as it prepared to evacuate for New York. Molly Pitcher earned her name here. Name this battle for 15 points.

Answer: _MONMOUTH_

B23. FTP each, name these current thinkers about the impact of technology.

A professor of the History of Consciousness at Santa Cruz, her _Primate Visions_ and _Simians, Cyborgs, and Women_ concern
the metaphors science uses to construct nature.

Answer: Donna HARAWAY

2. Her _The Second Self_ and _Life on the Screen_ discuss the construction of alternate identities online and their relationship to the real world.

Answer: Sherry TURKLE

3. In Release 2.0 she discusses how the Internet will change our business and social lives. The influential newsletter she edits, Release 1.0, is published by her company EDventure Holdings.

Answer: Esther DYSON

B24. Identify these branches of physics from descriptions FTP each.

 As opposed to dynamics which analyzes the causes of motion, this branch of mechanics is concerned with the description of motion.

Answer: KINEMATICS

- 2. This is the theory that describes the behavior of the strong nuclear force in terms of 8 different types of gluons acting on quarks. Answer: _QUANTUM CHROMODYNAMICS or QCD
- 3. This branch studies and tries to predict the magnetic properties, electron structure, and atomic arrangement of materials. It investigates both semiconductors and superconductors.

Answer: SOLID-STATE physics

B25. Place any subset of these 6 events from the Roman Empire in chronological order. You will earn 5 points for each correct event you list, but any out-of-order responses will earn you 0 points. The events (READ SLOWLY): Caracalla begins his reign, Commodus is born, Hadrian dies, Juvenal issues the second book of the Satires, Tacitus writes the Agricola, The Year of the 4 Emperors

Answer: _4 EMPERORS_ (69), _AGRICOLA_ (98), _JUVENAL_ (between 115 and 127), _HADRIAN_ (138), COMMODUS (161), CARACALLA (211)